

Public Comments on the DEIS for the Lake Whatcom Landscape Plan and DNR's Responses

Comments Concerning the Natural Environment (NE)

NE-1: Mass Wasting

- Some time ago a letter appeared in the Herald suggesting that the muddy water flowing into Lake Whatcom from Austin Creek was the fault of Sudden Valley. This followed a Lookout Mountain harvest, and the speaker followed up Austin Creek and traced mud to Beaver Creek, up more creeks to the area of a previous logging site on Lookout Mountain. He wrote a letter to the Herald to this effect. DNR said the mud originated at a landslide. Concerned that the map for Preferred Alternative does not show Beaver Creek headwaters as mass wasting area. PH6C1

Response: The maps associated with the alternatives are at a scale suitable for general planning purposes. More precise site-specific field investigation to identify unstable and potentially unstable slopes is done during operational level planning when particular activity proposals are developed.

- ...The event in question [1983 landslide] was responsible for sediment and related pollutant loading that would have occurred naturally only over decades. L14/C15

Response: As we noted before in the PDEIS response summary, when event driven processes are being evaluated, the severity of the event should be considered. Long-term averages do not necessarily provide information that is relevant for individual storm events. The January 1983 event was extremely severe, and the watershed has not experienced a comparable event since that time.

- Although the draft EIS indicates that under the Preferred Alternative the risk of landsliding associated with forest practices would be substantially mitigated by adhering to current forest practice rules, the rules were not designed to protect public safety but to accommodate timber harvest to the extent possible while mitigating potential adverse impacts on salmonids. L25/C1

Response: This statement is not accurate. Public safety is specifically addressed by SEPA Policies WAC 222-10-030 under (1) (b), (2) (B), and (4), and by Forest Practices Rules WAC 222-16-050(1)(d).

- Identifying existing active landslides and restricting actions on them should not be difficult. In contrast, identification of future landslide sites among those considered to be potentially unstable is notoriously difficult. L25/C2

Response: Future landslide sites are often difficult to identify. The two initial slope stability mapping processes identified potentially unstable and unstable slopes at a scale adequate for general planning purposes. During operational planning, on-site evaluations will be conducted by DNR slope stability specialists, providing an additional finer scale screen for identifying potentially problematic sites. Once identified, proposed management on such sites will be

developed considering review and recommendations by both DNR specialists and the interjurisdictional committee (IJC).

- p. 76: No probable significant impacts to slope stability would be expected as a result of implementing the No Action Alternative. Too vague. L21/C7

Response: The analyst, after considering all relevant information, reached the conclusion that implementing the No Action Alternative would result in no probable significant impacts to slope stability. It responds to the central questions that are intended to be addressed in the SEPA review process. Details supporting the conclusion can be found in the DEIS, pages 76-77 and PDEIS, pages 152-54.

- Concerned about landslides, flooding and sedimentary run-off affecting land surrounding mine and my neighbors' homes. L45/C2

Response: Strategies designed to mitigate those concerns are found under Objectives 1, 2, 3, and 4 of all three alternatives in the DEIS.

- Ask for environmental experts to access and determine stability of the Lake Whatcom watershed...to definitively measure what level of logging may be done. L45/C4, L11/C7

Response: Much of the work suggested has been done through the Mass Wasting Module of the Lake Whatcom Watershed Analysis, completed in 1997, and the Slope Stability Assessment completed for this planning process. Estimates of harvest level found in DEIS Table 6, page 42, takes the slope stability information mentioned above into account.

- Slope failure and significant debris flows are not just sporadic results of post glaciation soils; landslides are far more likely to occur on slopes cleared of trees. EM60/C8

Response: Tree removal is a significant factor affecting slope stability on some, but not all, sites. This effect has been considered in developing the management strategies and is also considered in the operational design of management activities on a site-specific basis.

- Information will soon be developed regarding slope stability and mass wasting as a result of the upcoming Unstable Landform Study and Zonal Landslide Hazard Study. Provision should be made to include this information in the EIS. L24/C6

Response: The goal of the zonal landslide hazard study project is to better describe and map all potentially unstable landforms and slope areas in priority watersheds to eliminate possible errors of omission in the identification of unstable slopes during the forest practices permitting process. Additionally, this data can be used for forest management, monitoring and research. The portion of the study which involves the Lake Whatcom area is scheduled to begin in early 2004, after the FEIS has been completed. However, results of the study will be considered and applied as appropriate throughout the implementation of the Lake Whatcom landscape plan.

NE-2: ARS#1

Response follows the two comments below:

- DNR states there will be no harvest on unstable slopes – yet the Preferred Alternative allows logging on ARS #1. PH8/C3, L28/ C2, L43/C2, OL3C2

- You must prohibit road construction on all unstable slopes, including ARS#1. L26/C3, L42/C3, L49/C3

Response: ARS-1 is a landform identified in the Watershed Analysis Slope Stability Module as “Headscarps and toes of ancient and dormant deep seated landslides.” Watershed Analysis assigns it a moderate hazard rating. See Map G-1 in the Final EIS Appendix for the location of this landform in the planning area.

In the PDEIS this landform was identified as “unstable for planning purposes” and this designation was summarized in the DEIS simply as “unstable.” This designation means that the landform does contain some unstable slopes and should be considered unstable until field verified by on-site investigation. However, it does not mean that the entire landform is unstable. This landform is described as containing slopes ranging from 20 percent to 100 percent. The landslide inventory did not find landslides occurring on slopes less than 55 percent on this landform. The Prescriptions for this landform prohibit road construction on slopes greater than 50 percent but allow road construction with protection measures on slopes from 20 percent to 50 percent. It is believed that the slopes with a gradient from 20-50 percent are stable. However, field investigation of these slopes is necessary to determine if these slopes are actually stable or unstable. If road construction were proposed, field checking of the site would occur using the definition of unstable slopes that was adopted as part of the Slope Stability Assessment report for this landscape plan. See page G-3 of the Slope Stability Assessment found in the PDEIS Appendix D for the definition of unstable slopes. If on-site evidence indicates the proposed road location is unstable, the site would be treated as other potentially unstable slopes that are found to be unstable and road construction would be prohibited. If the site is found to be stable, road construction would occur using the additional protection measures described in the Watershed Analysis prescription for ARS-1. This strategy implements the legislative direction found in E2SSB 6731 that prohibits new road construction on unstable slopes.

NE-3: Unstable slopes

Response follows the next 16 comments:

- I understand most of watershed has unstable slopes. PH16/C2
- Concerned about logging on unstable slopes. L4/C3, L40/C2, L53/C3, L55/C3, EM59/C6
- No logging on unstable slopes, and where logging occurs make sure silt doesn’t reach waterbodies. L10/C2, L7/C3
- Concerned with logging and road building on unstable slopes and areas adjacent to homes and the lake. L44/C2
- Don’t harvest on unstable slopes to avoid negative environmental impacts. L15/C4, L52/C2, L6/C3, L26/C13
- Harvesting on unstable slopes also puts those who live below them at risk. It is not enough to simply give lip service to our concerns for safety in our homes. L15/C5

- p. 106: Impacts for unstable slopes and surface erosion need to be quantified; too ambiguous. L21/C8
- Avoiding disturbance of unstable and potentially unstable slopes is a major concern. It is important that violations be avoided rather than recognized retroactively and maybe penalized nominally after the damage is done. L22/C3, EM57/C8 and EM57/C9
- There should be no road building or improvements to existing roads on unstable slopes. The potential for slides is great.... L23/C6
- Concerned about unstable slopes and the effect that increased access of machinery and cutting would have. EM53/C2
- No road building on unstable slopes. L35 C2, L38/C4, EM60/C1, EM61/C3
- I'm concerned about slope failure and the water quality of Lake Whatcom. I believe cutting on unstable slopes is insane. No road building on unstable slopes. L34/ C1 and C2
- I would prefer to know you don't plan to harvest on unstable slopes, and work with scientists to figure this out. L36/C3
- No cutting on unstable slopes. L38/C10, L54/C2, EM11/C3, EM59/C6, EM60/C1, EM61/C3
- No road building or timber harvest on unstable slopes. EM5/C2, EM6/C2, EM7/C2, EM8/C2, EM9/C2, EM12/C2, EM13/C2, EM14/C2, EM15/C2, EM16/C2, EM17/C2, EM18/C2, EM19/C2, EM20/C2, EM21/C2, EM22/C2, EM33/C2, EM34/C2, EM35/C2, EM36/C2, EM37/C2, EM38/C2, EM39/C2, EM40/C2, EM41/C2, EM42/C2, EM43/C2, EM44/C2, EM45/C2, EM46/C2, EM47/C2, EM48/C2, EM49/C2, EM63/C2, EM64/C2, EM66/C2, EM67/C2, EM70/C2, EM71/C2, EM72/C2, EM73/C2, EM27/C1, EM32/C2, EM69/C1, OL4/C2
- Any potential logging on unstable slopes should be carefully evaluated by an interjurisdictional committee. EM50/C1

Response: Under the Preferred Alternative, there would be no timber harvest or construction of new roads on unstable slopes. DNR would consider recommendations of the interjurisdictional committee (IJC) and specialists concerning road reconstruction proposals on areas identified as unstable.

NE-4: Potentially Unstable Slopes

Response follows the eight comments below:

- It worries me that logging is being considered on slopes near the lake, many of which are potentially unstable. This, with road building, can result in landslides. L4/C1
- Very concerned about logging on potentially unstable slopes as recent studies have shown that this can lead to landslides. I live below one of those very steep slopes on Lookout Mountain and do not wish to end up under tons of mud. EM25/C2
- How minimal would you consider it if your children were at risk? The final plan must prohibit logging on potentially unstable slopes EM26/C6
- Concerned about activities on potentially unstable slopes, especially logging. L5/C4, EM59/C6
- No harvest or road building on potentially unstable slopes. L31/C2, L45/C1 and C2, EM4/C1
- No harvesting or roads on potentially unstable slopes. The landslide of 1984 [1983] has proven such actions can cause disaster. L32/C1
- Of particular concern is logging on the Austin Creek Plat directly above Sudden Valley... While we understand that forest practices have changed in the last 20 years logging on potentially unstable slopes remains risky and should occur only on slopes deemed by on-site evaluation to be stable. L17/C3

Response: Comments noted. The Preferred Alternative carefully regulates harvest and road construction on potentially unstable slopes. Proposed activities on potentially unstable slopes will require on-site evaluation by a DNR specialist to determine actual unstable areas, and no road construction or timber harvests will be allowed on those areas identified as unstable through this evaluation. In addition, proposed activities on or adjacent to potentially unstable slopes will be reviewed by the IJC, who may make site-specific recommendations.

- Alternative 3 would allow up to 50 percent harvesting on potentially unstable slopes. I know of no studies that have demonstrated that a 50 percent partial cut on potentially unstable slopes would ensure no significant risk of landsliding. L25/C3

Response: A DNR slope stability specialist earlier provided a list of “partial-cut/root-strength” literature citations that provides a theoretical basis for the practice of partial cut harvesting to retain tree root strength. A number of Watershed Analysis Reports in Northwest Region contain prescriptions that allow partial cutting in certain instances on marginally stable slopes. That option has been exercised in a number of cases. Also, partial cutting has been approved through Forest Practices Interdisciplinary Team consensus outside of areas covered by Watershed Analysis Reports. DNR is unaware of slope failures in any of these cases.

NE-5: Water

- There are critical watershed issues, specifically protection of drinking water. L2/C2

Response: Protection of water quality is a major focus of the strategies contained in the preferred alternative.

- Drinking water must be of highest quality. L10/C6, L7/C1

Response: See response to L2/C2 above and PH3/C1 and L42/C6 below.

- The unique status of a drinking water reservoir warrants strict attention to these objectives in the development, assessment, and adoption of an alternative.

Response: DNR agrees.

- Does water quality have to do with entire body of the reservoir or simply streams on DNR land? PH3/C1

Response: DNR's ability to influence the quality of Lake Whatcom water is related to the water it contributes to the lake, estimated to be approximately 35 percent of the water entering the lake via streams flowing from trust lands or from overland flows.

- Address water pollution. L42/C6

Response: As stated in the PDEIS (p.103), the Source Water Protection Plan for Lake Whatcom prepared by the City of Bellingham and Whatcom County Water District #10 identifies a number of activities, conditions and land use practices within the watershed that have or could have an adverse impact on water quality. The Washington State Department of Health reported that very few of the potential contaminant sources cited in the protection plan could originate from state forestlands or DNR's activities.

- The problem around Sudden Valley is not silt, it's human excrement. That's what needs to be addressed; go after Sudden Valley sewer system. PH15/C2

Response: Comment noted. Issues relating to the Sudden Valley sewer system are outside the scope of this planning process.

- Studies have shown increased harvest increases water quantity. PH14/C3

Response: Effects on water quantity were considered in this EIS. See pages 50, 51 and 107 of the DEIS.

- Ensure protection from landslides and make certain slopes generate clean water. L31/C8

Response: Comment noted.

- As a 40-year resident I do not scientifically understand the hysteria in the past five years over the water's condition and safety. The scientists who manage water don't seem to think there is a problem – haven't said the water quality is dangerous to health...they've said the water quality has changed. PH15/C1

Response: See response to L42/C6 above.

- Studies of the quality of Lake Whatcom reservoir must account for the reduced water quality from the Nooksack diversion, seasonal changes and slope stability. L23/C8

Response: See response to L42/C6 above.

- Through the course of the EIS process, the proponent has attempted to make several points to establish that, in its view, all of the issues...amount to little with respect to drinking water and ecological concerns.... And sediment phosphorus is already so abundant that new additions will not increase releases during low oxygen conditions. L14/C14

Response: The point about phosphorus loading was not based on the argument that because of the abundance of sediment phosphorus, new additions would not increase releases. Instead, the processes necessary for releasing phosphorus into solution from sediment take place in the upper layers of sediment deposits on the lake bottom. Therefore, the rate of release is not necessarily proportional to the amount of additional deposition. This conclusion is based on the chemical reactions involved in the process and sound logic.

- Drinking water is affected by logging on unstable hillsides, close to streams and through wetlands, and high density logging (clearcuts). Provide environmental impact statements for watersheds that will be affected. L37/C1

Response: The PDEIS, DEIS and FEIS for DNR-managed lands in the Lake Whatcom watershed address these issues. The landscape plan has strategies to protect water quality by restricting logging on unstable slopes and providing riparian buffers. The environmental impacts of each proposed timber harvest are evaluated on a site-specific basis through the SEPA process.

- The less disturbance through logging and clearcutting around the lake's lands the better the chances are to protect the water supply and lake ecosystem. L51/C1, EM50/C1

Response: Comment noted. Please see response to comment L42/C6 above.

- Still many questions about the impact on the aquifer that feeds Glenhaven's community wells. EM26/C8

Response: Comment noted. See DEIS pages 51 and 107 for discussion of impacts to ground water quantity and quality.

- I am deeply saddened by the prospect of continuing totally unnecessary degradation of our water supply by practices such as those allowed by the Preferred Alternative. None of the Alternatives propose the kinds of watershed management that are essential to the present and future health of our water supply. EM52/C1

Response: Comment noted.

- The issue most threatening to drinking water quality is increased phosphorus loading...phosphorus enters water when runoff erodes soil and when both soil and vegetation enter water through mass wasting. EM65/C9

Response: Comment noted. Please see responses to comments L42/C6 and L14/C14 above.

- As cottonwoods have grown I've noticed ponds and wetlands drying up. PH20/C2

Response: Comment noted.

NE-6: Sediment

- Austin Creek/Beaver Creek has a serious silting problem. The extension of the shoal has serious problem. PH9/C1

Response: Comment noted.

- Harvest and roads can lead to increase of sediment. L4/C2

Response: The strategies under Objectives 1, 2, 4, and 14 are intended to reduce the potential for increased sediment from management activities.

- Sediment affects quality of drinking water, chokes marine life and may now be filtered or might need to be in future. L11/C4

Response: See response to L4/C2 above.

- Soils are relatively thin....produce a rapid surface runoff response to precipitation without duff and the other features of a Pacific Northwest forest that largely attenuate runoff production....All these factors make substantially increased sediment transport to the lake likely with more roads and timber harvest. L14/C12

Response: This comment was addressed in the PDEIS Response Summary. As stated before, forest duff storage, infiltration and evaporation are not eliminated because of timber harvest. Except in areas of extreme disturbance, the predominant subsurface transport of water to stream channels will continue. Science and history show this to be true. In comparison with the proposed Preferred Alternative, forest land in the watershed has been heavily used, with relatively few environmental protection measures in place, for more than a century, yet there still is soil and forest vegetation on the steep slopes.

- Grizell acknowledged the relatively low large woody material presence in Lake Whatcom feeder streams....meteorology, plus erosive soil characteristics and mass wasting vulnerability, plus efficient sediment transport add up to a high sediment input to Lake Whatcom when its watershed is disturbed. L14/C13

Response: One of the major functions of the mitigation measures to leave buffers along streams is to grow and provide a source of large woody debris. (See DEIS Summary)

- I strongly believe that sediment phosphorus build up will continue unless inputs decline. I further believe that phosphorus releases from sediments will grow as low oxygen conditions extend in time and space. L14/C18

Response: Please see the response to L14/C14

- We ask that you evaluate the amount and sources of sediment entering the lake from trust lands and contributing to phosphorus loading and deoxygenation and adapt the preferred alternative to minimize additional sediment inputs. L26/C10

Response: The amount and sources of sediment were evaluated in the Lake Whatcom Watershed Analysis. The Preferred Alternative minimizes additional sediment inputs.

- Sediment not only pollutes streams and affects wildlife but creates a risk of mudslides. L38/C2

Response: See response to L4/C2.

- Alternative 2 is insufficient to protect Reed and Cain lakes from the silt runoff that will result [from logging]. ...What pollutes Reed will flow into Cain Lake. EM26/C7

Response: DNR respectfully disagrees. Analysis of the potential for impacts from surface erosion or mass wasting to water quality is not expected to be significant. See PDEIS pages 156, 157 and 199.

- Respect First Nations' cultural issues by not allowing silt and polluted storm water to filter down to once pure streams. EM61/C6

Response: See responses to L4/C2 and EM26/C7 above

- Large buffers a must for streams and unstable ground. L34/C5

Response: Comment noted.

NE-7: Monitoring for sediment

Response follows the eight comments below:

- Monitor streams for temperature and sediment, with intention of monitoring potential phosphorus inputs to lake. L5/C2, EM25/C4, L31/C5
- Monitor for temperature and sediment. L53/C1, EM29/C3, L40/C6
- Monitor sediments in streams. L35/C4, L41/C3, L34/C4, L6/C5, OL4/C1
- Monitor impacts of any logging to streams. L43/C5
- DNR should monitor and record effects of all activities in the watershed. L10/C5, L54/C3
- Monitor streams for sediment during times of DNR activities. The city has invested in monitoring stream flows as part of the DOE TMDL study now in progress. It would be helpful to capture DNR generated data as well. L49/C5
- Studies should be considered related to sediment in all area lakes as a result of logging roads, clearcutting and other timber harvest. L42/C8, L39/C8, L45/C5
- Have in place a system for ongoing monitoring of impacts of logging to streams and include a structure within the plan for changing management according to science or monitoring results. EM5/C3, EM6/C3, EM7/C3, EM8/C3, EM9/C3, EM12/C3, EM13/C3, EM14/C3, EM15/C3, EM16/C3, EM17/C3, EM18/C3, EM19/C3, EM20/C3, EM21/C3, EM22/C3, EM33/C3, EM34/C3, EM35/C3, EM36/C3, EM37/C3, EM38/C3, EM39/C3, EM40/C3, EM41/C3, EM42/C3, EM43/C3, EM44/C3, EM45/C3, EM46/C3, EM47/C3, EM48/C3, EM49/C3, EM63/C3, EM64/C3, EM66/C3, EM67/C3, EM70/C3, EM71/C3, EM72/C3, EM73/C3m EM60/C6, EM62/C4

Response: Active monitoring of the water quality of Lake Whatcom, as well as many of the larger streams, is being done by other agencies and jurisdictions. DNR is interested in the results of this monitoring work and will use adaptive management to modify its management practices if monitoring data indicates significant impacts to water quality are occurring. DNR also conducts statewide implementation and effectiveness monitoring of its management activities. Results of this monitoring are used to evaluate and modify management practices as needed.

NE-8: Aesthetics

- Saddened by view of Stewart Mountain, with trees gone. PH16/C3

Response: Most of the recent harvesting on Stewart Mountain is not on DNR managed land and is outside the planning area.

NE-9: Riparian Buffers

- The law mandates “establishing riparian management zones along all streams” without distinguishing among stream types. However, these zones along Type 5 streams can be cut for roads and yarding corridors. Buffer widths would be less for stream Types 4 and 5 than for Types 1-3. EM65/C5

Response: Stream buffer widths for the Preferred Alternative are consistent with those established by DNR’s Habitat Conservation Plan for stream Types 1-4 and consistent with recommendations from the 1999 Lake Whatcom DNR Advisory Committee for Type 5 streams.

-Current forest practice rules, E2SSB 6731 and the HCP should guide riparian protection and management. L24/C4

Response: The strategies in the Preferred Alternative are consistent with Forest Practice Rules, the HCP and E2SSB 6731.

- P. 12, objective 3: There is no scientific support for wider buffers on Type 4 and 5 waters and wetlands. L21/C3

Response: See response to EM65/C5 above.

- [Want to have] Larger buffers on all streams. L31/C6

Response: Comment noted.

- Protect streams, wetlands and unstable banks with appropriate buffers of 150 feet or more. L38/C3

Response: No probable significant impacts are expected from establishment of riparian buffers as described in the Preferred Alternative.

- Exclude all wetlands from harvest and provide buffers. L31/C7

Response: Comment noted.

- No logging or road building on any wetlands, and provide wetland buffers. L30/C7

Response: Comment noted.

- [There should be] larger buffers on streams and longer rotations to ensure environmental integrity and public health and safety. L27/C6

Response: DNR respectfully disagrees. The DEIS analysis did not show probable significant impacts as a results of implementing the Preferred Alternative.

NE-10 Small wetlands

- The Preferred Alternative provides no buffer zones for wetlands smaller than 0.25 acres in area. Nowhere is it given how much of the total wetlands habitat is provided by these smallest wetlands...There was no analysis of how much impact of this type the Preferred Alternative will produce. L14/C20, EM65/C8

Response: This comment was addressed previously, as part of the response to comments on the PDEIS. The DEIS did not specifically address the concerns expressed about the extent of impacts to small wetlands because there was no change in wetland data or its analysis from what was available in the PDEIS for Alternative 2 (similar to the DEIS Preferred Alternative). Here is the text of the previous response: *The Washington State Habitat Conservation Plan, the Forest Resource Plan and the Lake Whatcom PDEIS do indeed leave out specific protection for wetlands under 0.25 acres. This is not because DNR believes that small wetlands are unimportant, in fact, there is evidence that the habitat value of smaller wetlands may be proportionately greater for amphibians than that of larger wetlands. The cutoff size of 0.25 acres was based on operational feasibility; quite simply it is too difficult to locate a wetland smaller than that on an air photo, particularly if it happens to be a forested wetland. This does not mean that small wetlands on State lands are routinely clearcut, or that they do not receive protection. The HCP and FRP provide protection for seeps and wetlands under 0.25 acre “when necessary for water quality, fisheries habitat, stream banks, wildlife and other important elements of the aquatic system” (Forest Resource Plan Policy #20, DNR 1992 p. 35). Foresters generally clump “leave trees” around small wetlands on timber sales to protect the hydrology, soils and vegetation of the wetland. The PDEIS does not include information on how much of the total wetland habitat in the planning unit is provided by small wetlands because DNR does not know. DNR uses two sources of data to provide information on the location and size of wetlands. The first is FPWET, a GIS coverage consisting of the National Wetlands Inventory data with Forest Practices wetland types superimposed. Because this data is derived from photo interpretation, it misses many small wetlands, as well as many wetlands that are hidden under forest canopies. The second data source is the FRIS inventory data, which includes any wetlands that inventory staff encountered on FRIS plots. The FRIS data was collected in random samples off of a grid, and while it has the advantage of being derived from field observations, wetlands were recorded only if they happened to appear on FRIS plots, so inevitably many wetlands would escape notice through the FRIS process. Unmapped wetlands are currently identified on the ground, timber sale by timber sale, as a comprehensive wetland inventory is beyond the State’s financial capability at this time.*

The risk to small wetlands under the Preferred Alternative, or any other alternative, remains unknown. However, DNR has a “no net loss” of wetland acreage and function policy for wetlands on State land, which includes protection for small wetlands. DNR foresters, when they set up a timber sale, walk through the sale area identifying and mapping wetlands and other sensitive resources. When wetlands are encountered in the course of timber sale planning

activities, they are frequently protected as described above, by clumping required leave trees around them, as a de facto buffer. Where clumping of leave trees does not occur, the wetland soils are protected by excluding yarding equipment from the wetland and using either leading end suspension or full suspension of cable yarded logs. Further analysis to establish how many acres of wetlands under one quarter of an acre exist on the Lake Whatcom planning unit would have to entail a systematic ground survey. This would be very time consuming and expensive, and might not significantly increase small wetland protection, because existing policy already provides protection. The Department does not have the funding necessary to undertake such a survey. DNR is currently unable to quantify how better data on small wetland location might influence wetland protection. Existing policy acts to reduce risk through discouraging ecological damage to any wetland. The fact that the location of all small wetlands is not known represents an unknown risk, as it is possible that an occasional small wetland will go undetected during planning activities, but because of existing department procedures, the risk of “loss” is expected to be small.

NE-11: Peak Flows

- A large share of trust lands lie in the rain-on-snow zone. This zone can receive either snow or rain, depending on temperature, and is prone to very large runoff volumes and peak flow rates caused by a lot of rain falling on accumulated snow. Grizell attributed the greatest potential for hydrologic effects to this condition. L14/C11

Response: A large share of the trust lands does lie in the rain-on-snow zone. This is why analyses of the influences of timber harvest on peak flows responding to rain-on-snow events were performed for sub-basins within the Lake Whatcom watershed. (See DEIS, page 50.) The strategies for maintaining hydrologic maturity are designed to avoid significant impacts such as those the commenter described.

- Intact forests help to balance and regulate water flows. Undisturbed forests are valuable in and of themselves. L51/C2

Response: Implementation of the Preferred Alternative will maintain these lands as healthy productive forest lands for the future. Although the Preferred Alternative does not propose undisturbed forests it will maintain hydrologic maturity levels sufficient to avoid changes to peak flows.

NE-12: Plants and Animals

- The DEIS talks about extirpated species that might have occurred in this landscape. Creatures deserve to be represented - they impact our lives and are extinct partly because of logging in the last hundred years. People sometimes don't see the impacts of their actions. PH18/C1

Response: The impacts to wildlife have been considered and evaluated. No species are expected to be extirpated from the planning area as a result of implementation of the Preferred Alternative.

- p. 54, Forest habitats quality and quantity: It is well known that more species are present in a varying age forest; that a well managed stand with many age groups will contain more species. This statement misleads to think an older stage stand has more diversity than any other age group or range of age groups. L22/C6

Response: The majority of current literature supports the statement that was made on page 54 of the DEIS regarding wildlife diversity in mid-seral vs. late-seral forest stages. Perhaps some clarification is in order. First of all, in the analysis for the PDEIS and DEIS, the term “mid-seral” was applied to stands in the “pole” and “closed” stages, likely ranging from 30 or 40 to 70 years of age. Secondly, it may be necessary to distinguish between landscape-level and stand-level characteristics in order to address this.

The comment that “more species are present in a varying age forest; that a well-managed stand with many age groups will contain more species” certainly CAN apply on a landscape scale. It is widely accepted that a landscape composed of multiple seral stages will provide for the greatest diversity of habitat and wildlife species using that habitat. However, on the stand level, it has generally been found that species richness is highest early in succession, drops to much lower species numbers following forest canopy closure, and then recovers to intermediate levels of diversity in the mature and old-growth stages (Franklin 1991). In terms of habitat, both vertical and horizontal structural diversity are limited in the pole and closed forest stages. This translates to a lower diversity of wildlife species using these forest types. Structural diversity does not usually develop until later successional stages, *unless* older remnants remain within the younger stand, and/or disease or wind events have created “patches” or pockets of different species and/or ages. Although some mid-seral forests on DNR land contain remnants or pockets of varying habitats, the majority of them do not contain enough structural diversity to support a high diversity of wildlife species. It should also be kept in mind that, although the early successional stage usually has more total species, most of these species are “aggressive generalists” whose habitat is common. In contrast, many of the species found in the mature and old-growth forests have specialized habitat requirements that are not found in earlier stages of forest succession (including what has been defined as “mid-seral” forest for this analysis).

- P. 111, “small buffer strips on headwater streams can protect habitat and water quality:” another waste of resources. Amphibians exist in the other buffers and will soon come back into these areas. L21/C11

Response: Preliminary results from a study of different buffer designs show that a suite of stream-associated amphibians use non-fish-bearing streams in managed headwater landscapes. In fact, several species, including the tailed frog, appear more abundant in non-fish-bearing headwater streams. There has been consensus among state and federal agencies, tribes, the timber industry, and small private landowners – through the Forest and Fish process – that amphibians may be a significant conservation issue in headwater streams, and that there is value in protecting these streams, especially if they represent source areas for these species. The study will be examining the level of protection that is adequate, and is expected to provide scientific information that could guide adaptive management (which could result in more *or less* protection, depending on the results).

- P. 111 “The Preferred Alternative would retain more undisturbed areas for species identified with older interior forests. There would also be potential for characteristics to develop that would be more conducive to marbled murrelet nesting.” This would be detrimental to the trusts; the more seral stage timber for murrelets would mean more of the harvestable land would have to be used to buffer these areas, creating a bigger loss of land. Murrelets need no

more land; they are doing well in their main habitat in British Columbia and Alaska.

L21/C12

Response: Neither the DNR nor any other landowners are currently required to *buffer* known occupied murrelet sites, and it is even less likely that potentially suitable habitat would be buffered under the interim strategy. However, it is true that the possibility of buffering *may* be considered when the long-term strategy for marbled murrelets is developed for the North Puget Planning Unit, which contains the Lake Whatcom planning area. The murrelet population in British Columbia is significantly declining (the government “recovery” strategy is a 30 percent decline). Regardless of this, marbled murrelets are listed as “threatened” in Washington, Oregon, and California under the Endangered Species Act (ESA). The purpose of ESA protection is the prevention of regional, as well as global, extinction. Maintenance of habitat over the whole of a species’ range is necessary to prevent regional extinction. The Washington population still appears to be declining (the projected rate is currently under review). Under the HCP, the DNR is committed to the minimization and mitigation for any incidental take of this species (HCP IV p. 39). Inherent in this is the responsibility to *not* cause a further decline of the population. One may argue that prudent management would actually involve contributing to the *recovery* of the Washington population, so as to support overall recovery, and thus avoid more drastic protective measures in the future.

- P. 111: Restriction for unstable slopes could result in contiguous blocks of forest left unaltered...this could result in a higher degree of habitat suitability for interior forest species. This is an assumption not substantiated by science. L21/C13

Response: Comment noted.

- P. 112: There’s no science to back up assumption that Preferred Alternative is more protective. If the impacts are the same as No Action Alternative why do we need more protection? L21/C14

Response: Many of the differences between the No Action Alternative and the Preferred Alternative are due to the provisions of E2SSB 6731.

- P. 53 of DEIS asserts that the marbled murrelet has likely been extirpated from the planning area and does not note that an occupied stand was recently (2002) detected in McCarty Creek, less than one mile east of planning area. EM59/C2

Response: The analysis of the potential for marbled murrelets occurring in the planning area was based on information and local knowledge that was provided by someone who is more familiar with the area on the ground than the DNR analyst first consulted. It is not clear why the occupied detection in McCarty Creek was not mentioned previously. After acquiring additional information about this site, DNR has determined that it is somewhat “atypical,” and even considered to be of “poor quality” habitat. Compared to most occupied stands in Washington, this site is unusual in that it consists of only a few large remnant trees along the creek. Because there are some creeks within the Lake Whatcom planning area that have the potential to contain similar habitat (at least according to aerial photo interpretation), it is acknowledged that it is *possible* for murrelets to occur within the planning area. Examples of such creeks include Olson and Smith Creeks. Most of these creeks contain habitat that has been surveyed to PSG protocol, with no detections of murrelets. However, there are upper reaches of these same creeks that were

not surveyed. They contain stands that appear similar to the “poor-quality” habitat in McCarty Creek, and which were not identified as suitable habitat in the predictive model. After having acknowledged this, it should still be kept in mind that DNR has an agreement with the USFWS (letter dated November 18, 2002) to protect pockets of potentially suitable habitat that have been missed by the model. Under this agreement, remnant patches of older forest will be protected (when identified during pre-sales reconnaissance). Stands more similar to the McCarty Creek site may not be as “adequately” protected, as the agreement only requires that individual scattered large conifer trees with potential nesting platforms be retained through the legacy tree procedure under the HCP. This will not retain any surrounding stand characteristics that may contribute to the current suitability of the site for marbled murrelet nesting (but, rather, will maintain that structure for potential future use).

NE-13: Environmental protection under existing regulations

- Present regulations provide more than adequate protection. L19/C3

Response: This landscape plan is prepared in response to legislative direction found in E2SSB 6731, which requires additional protective measures beyond current regulations.

- The Lake Whatcom Watershed Analysis Prescriptions already address the concerns expressed as justification for the Preferred Alternative and Alternative. 3. The operational prescriptions were developed by a multidisciplinary team of resource scientists to address a wide array of resource concerns. EM31/C2

Response: See response to L21/C14 above. Alternative 3 is not presented as a preferred course of action. It is included for comparative analysis to “bracket” the Preferred Alternative between it and the No Action Alternative.

- State lands in the Whatcom WAU are also covered by the HCP. This plan was approved by US Fish and Wildlife and other regulatory agencies as being adequate for protection of the environment. EM31/C3

Response: This landscape plan is prepared in response to legislative direction found in E2SSB 6731, which requires additional protective measures beyond DNR’s HCP.

- The Washington Forest and Fish rule package adopted in March 2000 and all of the updates deal with issues of concern such as slope stability and water quality. EM31/C4

Response: Comment noted. See response to EM31/C3 above.

- Studies should be done on environmental impact and potential danger to citizens and wildlife. L42/C7

Response: The PDEIS and DEIS provide analysis of these impacts.

NE-14: Forest health

- p. 109, mitigation for Douglas-fir beetle is stupid, what a waste of resources, show the science. HCP rules should be used. L21/C10

Response: Comment noted.

NE-15: Mercury

- A more likely source of the unexplained mercury in Lake Whatcom than slash burning is naturally occurring cinnabar deposits in the Nooksack drainage. We suggest a study of the relationship between naturally occurring cinnabar and mercury presence. L24/C7

Response: Cinnabar – the principal ore of mercury - is a common component related to hot springs, geothermal and/or igneous activity, which is not uncommon in areas of geologically recent volcanic activity such as the Cascade Range. Cinnabar occurs commonly in chemically reduced, high sulfide systems. Leaching and erosion of paleo or active hot springs systems could introduce mercury into surface waters. These elements may also be introduced into the groundwater in proximity to the thermal water systems. Bedrock near intrusive igneous rocks may also contain elevated levels of these materials. Introduction of mercury and other elements into the ground or surface waters is possible as oxidation and erosion of these “contaminated” rocks occurs.

- We ask that the FEIS evaluate the forest hydrologic regime for each sub-basin, detailing the natural variability. L26/C14

Response: Please see the response to comment L14/C11

- We ask that you estimate hydrologic maturity over the next 40 years, taking into account the current state of DNR forests. L26/C15

Response: Future hydrologic maturity was estimated in the DEIS, pages 50-51.

NE-16: Hardwood Conversion

- North Cascades Audubon Society does not support an aggressive hardwood conversion program in the first two decades of operation and supports a more moderate rate of harvest of both hardwoods and conifers throughout the 200 year planning horizon. EM59/C4

Response: Red alder is a relatively short-lived species, maturing at about 60 to 70 years; maximum age is usually about 100 years (Worthington 1957). Incidence of decay increases with age. Most decay in alder appears to stem from physical damage to branches and tops after ice storms, unseasonable frosts, and wind events. In a study of 383 trees from 38 stands, the incidence of decay in alder was approximately 65 percent in trees more than 55 years old and 94 percent in trees older than 75 years (Allen 1993). Wood discoloration from “redheart” also appears to increase with age. DNR is interested in accelerating the harvest of alder in the watershed because much of the alder in the watershed is approaching, or is at, maturity. Allowing further aging of the alder will reduce the value of stands with substantial alder composition. Significant amounts of older alder will still be available in the riparian areas and areas off limits to harvesting. As a member of the Hardwood Silviculture Cooperative, the department is committed to long-term management of alder. When appropriate sites within the watershed become available, the department will be considering the feasibility of managing alder in those areas.

NE-17: Mushrooms

- Chanterelle mushrooms ... cannot grow in clearcuts. Stand coverage should be maintained in 40-year-old and older age categories. EM60/C9

Response: More than half the forested acreage will contain stands that are 40 years old or older under the Preferred Alternative. DNR does not believe that managing this landscape exclusively for mushroom growing would meet its obligations to provide revenue to trust beneficiaries.

NE-18: Reversing past deterioration

- The only way that the share of deterioration from forest exploitation can be reversed is through some combination of restoration of past damage, limitation of new disturbance, and implementation of substantially improved practices to mitigate what new disturbance does occur. This philosophy is embedded in the objectives but was not applied in developing the Preferred Alternative. L14/C16

Response: The Preferred Alternative incorporates strategies that limit new disturbance, mitigate impacts from new activities and restore areas that have been damaged in the past. “Substantially improved” practices are required under the Forest and Fish rules package and DNR policies. Some aspects of restoration of past damage will simply take time, as the forest regrows and becomes more mature across the landscape.

Comments Concerning the Built Environment (BE)

BE-1: “Actual logging plan” as opposed to average over 200 hundred years

The response follows this series of comments:

- Provide a copy of the actually logging plan. Most logging will occur within the first two decades. L5/C2, L6/C1, L22/C1, L23/C5, L26/C21, L40/C1, L39/C4, L42/C2, L43/C1, L44/C1, L45/C6, L52/C1, L53/C2, L54/C1, EM25/C1, EM25/C3, EM29/C1, EM53/C1, EM57/C5, EM57/C3, EM65/C2, EM64/C5, OL4/C4
- Detail true management plan and how you evaluate actual environmental impacts, rather than 200 year average. L6/C2, L27/C4, L28/C1, L30/C1, L31/C3, L36/C2, EM4/C4, OL3/C1
- DEIS page 125 financial analysis shows increase in logging in first two decades but management plan for that wasn’t analyzed in the DEIS; we ask that that be addressed. PH8/C1
- Staff have said there will be more logging in first two decades. Include that in DEIS. L7/C2
- Would like to see logging in the Preferred Alternative spread out over the 200 year duration of plan instead of heavier in the first years of the plan. L10/C1
- Look at actual management plan for impacts. PH8/C2
- Would you please put in writing just how much acreage will be logged during different phases of the 200 years? L15/C3
- Concerned that higher rate of logging will be done than what was analyzed in the PDEIS. PH7/C1
- Take present, past and future into account on subject of land management – analysis on a 200-year measurement is seemingly inaccurate. L11/C2
- The DEIS states that clearcutting would account for 47.3% of the logging (43 of 91 acres harvested annually). Subsequent research by Northwest Ecosystem Alliance revealed the DNR’s actual plan for harvesting differs from this statement, with 75 of 86 acres harvested annually to be clearcut in the period 2001-2020, rising to 97 of 121 acres per year during 2021-2040. According to this plan, then, an average of 104 acres per year would be harvested in the 40 year period, of which an average of 86 acres would be clear cut. L14/C7, L38/C9
- The financial analysis in the DEIS notes an increase in logging revenue of 68% in the first two decades over the 200 year average. Please clarify the relationship between revenue

streams and logging activities...and correlate the increase in revenues over a short period with the cumulative environmental impacts. L49/C6

Response: The DEIS contains information regarding the *average* harvest levels over the 200 years that was used as a modeling period for this landscape plan. This information was identified as representing the 200-year average and is not intended to imply that harvesting will occur at the average rate each year throughout the modeling period. It should be recognized that there would be variability in the harvest level year by year, but that the average is accurate for the period described. The information in the table below shows more detail regarding the harvest level for the Preferred Alternative. It shows *average* annual acres to be harvested by regeneration and thinning harvest types for each 20-year period within the 200-year modeling period.

	2001- 2020	2021- 2040	2041- 2060	2061- 2080	2081- 2100	2101- 2120	2121- 2140	2141- 2160	2161- 2180	2181- 2200
Regen Cut	75	97	35	72	8	29	74	19	23	4
Thinning	11	24	17	61	85	39	3	21	40	58

Again, it must be recognized that these are *average* numbers and the actual harvest level for an individual year within the 20-year period will vary from the average. This information is consistent with the information in the DEIS, but simply provides additional detail.

This variability in harvest level is primarily due to the current distribution of age classes of the forest stands in the planning area. There are a lot of stands that are in the 60-100 year age classes and fewer in the younger and older age classes. Because of this uneven distribution of age classes the harvest model projects a higher harvest rate in the near term because there are more stands of harvest age available, relative to later time periods.

Prior to the start of work on the DEIS this more detailed information was provided to the Lake Whatcom DNR Landscape Planning Committee and all of the analysts. The variability in harvest level was discussed with them and they were aware of the higher modeled harvest levels in the early decades and the reason for it. This information was considered and included in preparing the analysis for the DEIS. The analysis reflects their knowledge of and consideration of this information.

BE-2: Water quality

- Prof. Flora of WWU said water quality depends on the diversion of water from the Middle Fork Nooksack River; without the diversion of the Nooksack into Lake Whatcom there is further degradation, and ESA requires measurement of how much water we can take.
PH3/C2

Response: The diversion of water from the Middle Fork Nooksack River into Lake Whatcom is managed by the City of Bellingham and is not related to or affected by management of state trust lands in the watershed.

- Build-out, pesticides, etc. all affect quality. What about the mandate to safeguard the water?
PH3/C3

Response: A major focus in developing this landscape plan is to maintain good quality water flowing from state trust lands into Lake Whatcom. (See analysis in PDEIS and DEIS.)

- Saving the forest can keep water clean and reduce water treatment costs – i.e., City of New York will save \$8 billion over 10 years by investing in watershed improvements rather than a new treatment plant. There are significant savings by forest filtering. PH10/C1

Response: The Preferred Alternative is intended to maintain these trust lands as healthy and productive forest land and avoid conversion to a non-forest use.

- Twenty-five percent of the rest of the land in Lake Whatcom watershed is in small/large forestry. Want to see preservation of forestry in the watershed and avoid the greater problems to water safety and quality associated with human development. PH2/C2

Response: Comment noted.

- Glenhaven residences have experienced noise, visual impacts and damage caused by runoff from logging activities on Lookout Mountain. Water related impacts have included water quality degradation in Reed and Cain lakes, sedimentation in creeks and the delta areas of creeks draining into the lakes, and damage from mudslides and landslides. EM57/C2

Response: The Preferred Alternative incorporates strategies to protect water quality by reducing the risk of sedimentation.

BE-3 Timber harvest

- I missed the early part of [Sept. 22, 2003] meeting but heard you say helicopter logging is not feasible, so I assume that selective logging is not economically viable. PH16/C1

Response: Helicopter logging is economically viable on some sites where the flight distance is relatively short but is generally much more expensive than accessing the area by road and using conventional cable or ground based yarding. It is not viable on many sites where the flight distance is longer because the cost of removing the timber exceeds its value. The economic viability of each potential timber sale is analyzed as a step in its design and preparation.

Operational methods for timber removal, such as helicopter logging, are considered separately from decisions about the suitability of various stand treatments, such as regeneration harvests, thinnings, or other kinds of selective harvests. Both thinnings and partial cutting are expected to be used as harvest methods within the planning area. See Table 6, page 42 of the DEIS for an estimate of the amount of each type of harvesting that will occur.

- I like the proposed idea of logging roads being open for a much shorter time than the practice of 15 years. Is four years enough? It could place more pressure on larger harvest because of the shorter time allowed for road construction, etc. L2/C4

Response: When a road is constructed, consideration is given to whether multiple harvests are likely in the area that it accesses. Decisions to abandon roads are based on access needs, safety and environmental impacts. The Preferred Alternative plans to complete the road maintenance and abandonment work within four years after approval of the plan, however not all roads will be abandoned within four years of their construction. Analysis of the Preferred Alternative estimates that approximately 35 miles of permanent roads will remain for management purposes.

- Thinning of forests is in the best interests of the forests and wildlife overall. This thinning should be done via helicopter, under strict supervision. To state that thinning means leaving only 8 percent of the trees per acre in the area “thinned” is preposterous. Make no mistake, this is just a way to clearcut lands under the auspices of thinning forests. EM58/C6

Response: Thinnings on DNR managed trust lands typically result in removal of 20 to 40 percent of the timber volume, with the remaining 60 to 80 percent left intact. The commenter might be confusing thinning harvests with the green tree retention policy for regeneration harvests in citing the 8 percent figure (but even then, the DNR’s HCP requires that 8 trees per acre be left on regeneration harvests, not 8 percent of the trees per acre).

- Are impacts of more restrictive harvesting worthwhile? Is this overkill? L21/C18

Response: Finding the right balance between resource protection, generation of revenue and meeting community expectations is a difficult challenge. We believe the Preferred Alternative is an appropriate balance of these important needs.

- What are social and economic impacts of less harvesting? L21/C19

Response: The DEIS analysis concentrated on the amount of revenue that would be produced by timber management under each of the three alternatives. It did not estimate the social and secondary economic impacts of reduced harvest because such impacts do not need to be considered in an Environmental Impact Statement, which studies environmental impacts. Moreover, the department assumes that the Legislature already generally considered the social and economic impacts of reducing the harvest level in the watershed when it directed the department to develop the Lake Whatcom Landscape Plan.

- In terms of economic viability, a hundred-year-old tree is worth much more than a 40-year-old tree. L34/C6

Response: Comment noted.

- The Preferred Alternative would perpetuate a poor practice from the past, allowing yarding of logs across streams. L14/C19

Response: This practice may occur in some situations but is regulated by both the Forest Practices Rules and Hydraulics Code to protect water quality and fish and wildlife habitat.

- Limit logging to summer dry months and prohibit during winter wet months. L23/C7

Response: DNR takes seasonal conditions into account in designing timber sales on state trust lands. Sale contracts restrict the periods of operations according to site specific needs.

- The DEIS does not report how much of the DNR land has been logged (and the breakdown of clear cut and thinning) up to the present. L14/C8

Response: Because the trust lands within the Lake Whatcom watershed were acquired through a number of purchases and exchanges over a long period of time, developing a complete history of the past land management activities of various previous owners would be difficult. Instead, DNR considers the current ages and conditions of the stands across the landscape in making management decisions for the future.

BE-4: Road Construction

- Review road construction on a site-specific basis. L13/C4

Response: DNR does evaluate all road construction proposals on a site-specific basis, and under the preferred alternative would share information about all potential projects annually with the Interjurisdictional Committee. The SEPA review process for each timber sale includes evaluation of proposed road construction and allows public review and comment on this activity.

- Unclear about mileage computation for road network. Permanent network of roads is 35 miles. Currently 44 miles of active roads, with 43 miles more to be built. $44+43=87$ miles, minus 42 miles of orphaned roads = 45 left? Is it possible to utilize existing system better, reducing number of new road miles to be built? L13/C5

Response: The permanent road network of 35 miles does not include orphaned roads nor those roads that are anticipated to be abandoned after a period of time. DNR maximizes efficient use of existing roads through landscape level planning of the road network, but the mountainous terrain in the watershed makes it difficult to harvest timber without additional road construction necessary to protect resources and avoid landslides.

- It is stated that only 35 miles of roads will remain permanently active, but without any indication of how abandoned roads will be treated. They will either not be restored or seemingly at best be subject to the very weak restoration commitment given under Objective 2. L14/C9

Response: The commitment is to develop and begin to implement a road maintenance and abandonment plan within one year of approval of the landscape plan and to complete the work within four years. Active roads will either be upgraded or abandoned to Forest Practice standards. Orphaned roads will be treated where there is a clear risk to public safety or potential for resource damage and accessing the site will not cause greater resource damage or public risk. The goal of road abandonment is to reestablish natural drainage patterns and leave the road in a stable condition that will not pose risks to safety or public resources in the future. It is not intended to obliterate all evidence of the road or restore the road prism to the natural contours existing before the road was built.

- DNR should institute a strong program to mitigate quickly [orphaned roads as a trigger for mass wasting]. L14/C10

Response: See the response to L14/C9 directly above.

- Under the Preferred Alternative, road reconstruction in unstable or potentially unstable locations would be determined according to evaluation by a “DNR specialist.” Independence of the DNR’s own employee is doubtful in making these sensitive determinations. L14/C2

Response: Accurate assessments are in the interest of both DNR, which wants to avoid environmental and economic costs from errors or misinterpretations, and its licensed geologists whose professional reputations would be at stake.

- We ask that any proposed roads crossing type 5 streams occur with the agreement of the IJC, following review by independent geologists, and that only full suspension cable yarding across type 5 streams be considered by the IJC. L26/C12

Response: The role of IJC described in the legislation, E2SSB 6731, is to provide review and recommendations. The legislation does not grant the committee decision-making authority. Discussions with local jurisdictions regarding the role and responsibilities of the IJC are in progress but not yet completed.

- We ask that the cumulative impacts of the Preferred Alternative, particularly the impact of 43 miles of new roads to water quality and increased risk of landslides be addressed in the FEIS. L26/C18

Response: Comment noted. The DEIS analysis of the Preferred Alternative addressed the impacts related to roads, including risks of mass wasting. Please note that the DEIS (page 79) references PDEIS Alternative 1, section 4.2.1.3 (pages 156-57), for the description of cumulative impacts to water quality. The DEIS compares how the Preferred Alternative would differ from the No Action Alternative (see page 107).

- No more road building, especially on steep slopes. L39/C3

Response: Construction of roads is envisioned in all of the alternatives. Proposed locations are evaluated under SEPA for potential environmental impacts.

- No yarding of logs across or along streams or road cuts allowed in riparian zones. EM62/C3

Response: Comment noted.

- “The potential for impact from roads may be reduced because about a third fewer road miles will be constructed than under other the No Action Alternative. However the relative difference is more dependent on location and construction techniques than on small differences in miles.” Prove it. If this statement cannot be proven then HCP rules should be used. L21/C9

Response: Anyone who is familiar with forest roads who has some knowledge of erosion processes, or who has reviewed the literature that applies to roads and erosion knows that erosion occurs on road surfaces and rights of way. Therefore it is a logical conclusion that if the amount of road surface is greater the amount of erosion would also be greater. However, the amount of sediment transported to surface waters from road erosion strongly depends on road design and location. The Preferred Alternative reflects the requirements of E2SSB 6731. DNR is subject to this legislation in managing trust lands in the Lake Whatcom watershed. Moreover, the Preferred Alternative is more restrictive in its road building and maintenance requirements than the DNR’s HCP; thus, the HCP standards also will be met by the Preferred Alternative.

- Concerned about impacts of road building, maintenance and abandonment. Roads are a large source of sediment flow to forested streams, and while mass wasting is a significant issue, roads are a longer term concern. Landscape plan should more thoroughly address plan to abandon and restore roads according to latest ecosystem science. L5/C1

Response: Site specific plans for road maintenance and abandonment will be reviewed by the IJC and are subject to regulatory review and approval under the Forest Practice Rules.

- Not worth the risk to build roads on steep slopes and drive heavy equipment on the roads. L33/C2

Response: Comment noted.

- Develop real restoration procedures and timelines, especially for old roads which scientific opinion is clear are prime source of existing problems with water quality, mass wasting and ecological harm to flora and fauna. EM62/C6

Response: Development and full implementation of a road maintenance and abandonment plan will occur within four years of approval of the landscape plan.

BE-5: Logging on Lookout Mountain

- Concerned about risk of landslides and their financial and social cost. Positive there will be devastating repercussions if logging continues on Lookout Mountain. L9/C2

Response: Strategies in the Preferred Alternative are intended to avoid increased risk of landslides from forest management activities.

- You must stop logging on Lookout Mountain.... L41/C1 EM58/C4

Response: Comments noted.

- I enjoy seeing birds and wildlife. What will it be like if Lookout Mountain is logged? L9/C1

Response: The DEIS analysis indicates that the current species of birds and wildlife will continue to be present if harvesting described in the Preferred Alternative occurs.

BE-6: Revenue

- Nowhere in the report is any estimate provided of the actual dollars which would be directly returned to Whatcom County. On an optimistic basis, let one assume \$300,000... and 72,600 residences. Dividing the number of residences into the revenue projection we get an average return of revenue per residence of \$4.13. If you were to poll residents as well as the County Council you would very quickly find that all parties would willingly forego this immaterial return to maintain the forests for their use and the use of future generations. EM58/C3

Response: Revenue estimates for Whatcom County and its various junior taxing districts or programs from trust land management throughout the planning period in the Lake Whatcom watershed are shown for the No Action Alternative in Table 10 on 103 of the DEIS; for the Preferred Alternative in Table 11 on page 123; and for Alternative 3 on page 142. Tables 11 and 12 show the difference between revenues provided through implementation of the No Action and those generated under the Preferred Alternative and Alternative 3 respectively. DNR has legal obligations to provide revenue to both federal grant and Forest Board trust beneficiaries. Please see comment PH19/C3 directly below and the response to it for related information.

- Show the amount per capita from each Whatcom tax payer equivalent to the lost revenue if no harvesting took place. PH19/C3

Response: The table below shows the derivation of estimates of the foregone (undiscounted) annual revenue per capita for each of Whatcom and Skagit counties, based on data presented in Tables 11 and 12 (pages 123 and 142 respectively of the DEIS). The per capita annual revenue estimates are based on total county population for definition and data availability reasons.

The annual revenue estimates presented in the tables are derived from revenues from Forest Board lands only, and include revenue contributions from these lands to the State General Fund and the DNR Forest Development Account. The negative signs indicate that each person in each county would have to pay that amount annually as compensation for revenue foregone by choosing an alternative other than the No Action alternative.

		Whatcom County	Skagit County
County population (April 2001)		170,600	104,100
Preferred alternative versus No Action alternative	Change in undiscounted revenues (county only, 200 year period)	-\$471,000/year	-\$46,000/year
	Undiscounted revenue change per capita	-\$2.76/year	-\$0.44/year
Alternative 3 versus No Action alternative	Change in undiscounted revenues (county only, 200 year period)	-\$907,000/year	-\$87,000/year
	Undiscounted revenue change per capita	-\$5.32/year	-\$0.84/year

Source: <http://www.ofm.wa.gov/databook/county/clickmap.htm>, accessed November 6, 2003

Including only the revenues from Forest Board lands that would flow back to the various local government jurisdictions in Whatcom and Skagit counties would reduce the per capita annual estimates of foregone revenue to -\$1.56/year and -\$0.26/year (respectively) for the Preferred *versus* the No Action alternative, and to -\$3.00/year and -\$0.50/year (respectively) for Alternative 3 *versus* the No Action alternative.

- I believe cost-benefit analysis gives short shrift to the negative impacts of harvesting, such as introduction of exotic vegetation, damage to viewsheds and unknown cultural resources. CC3/C2

Response: Comment noted.

- Explain the difference between revenues outlined in PDEIS and DEIS. L26/C20A

Response: There are no differences between the PDEIS and the DEIS financial analyses other than a real discount rate of 5 percent being used in the DEIS as opposed to a range of rates used in the PDEIS. The results of the financial analyses are internally consistent, and consistent between the PDEIS and the DEIS. Since the Preferred Alternative and PDEIS Alternative 2 differed only in minor ways, the same modeling data were used for these alternatives in the DEIS as in the PDEIS.

- Reconveyance is not a revenue generating mechanism and should not be included. L26/C20B

Response: Reconveyance is included as an alternative here in full recognition that it would not generate revenue. This would be considered if the county indicated there was a preference to use the lands for recreational purposes rather than as trust land.

- DEIS lists “conservation easement” in the itemization of revenues, but it doesn’t receive further explanation and it’s not clear how that would generate revenue. L26/C20C

Response: At a minimum, a conservation easement would need to compensate the timber asset owners for foregoing timber harvest for whatever length of time the easement is effective. In analytical terms, in effect the financial analysis in the appendix already presents these results as the NPV differences between the No Action Alternative and the Preferred Alternative, and between the No Action Alternative and Alternative 3.

- ...For example, the Lake Whatcom bill is a significant step forward in protection of public resources and should be at or close to the mark for FSC certification. DNR has found that certified wood sells for an additional \$21/mbf. At an annual average yield of 2,730 mbf, DNR would realize an additional \$57,330 per year. That seems worth further investigation. L26/C20D

Response: Further investigation indicated that the quoted \$21/mbf price difference arose from a misunderstanding of the information presented on page 8 of the financial analysis appearing in Appendix D of the DEIS. The text states: *“For comparison purposes, the market price of green Douglas fir 2×4 standard and better grade, random length lumber at Portland (OR) was \$290/mbf for calendar year 2002, while the average stumpage DNR received for sales sold in the same period was some \$269/mbf.”* The \$21/mbf mentioned by the respondent stems from the difference in value between the quoted ‘green’ lumber price and stumpage (a comparison which involves subtracting a measure of value based on log volume from a measure of value based on lumber volume). However, the term ‘green’ in this context refers to unseasoned or undried lumber (as opposed to air-dried or kiln-dried lumber). It bears no relationship to certification associated with meeting defined forest management standards.

- The Preferred Alternative represents 50 percent less timber production than the No Action Alternative yet logging revenues drop by just 35 percent. We’d appreciate an explanation of that difference. L26/C20F

Response: Comparing Tables 6 and 7 on page 42, one finds the 50 percent reduction in average annual harvest results in an annual revenue reduction — for undiscounted revenues — of about 47 percent ($= \$160.2 \text{ million} / \$337.4 \text{ million times } 100 = 47.5\%$). The 35 percent reduction apparently refers to a change in net present values at a 5 percent real discount rate, sourced from Table DEIS 4-1. Thus this NPV difference is attributable to the timing of the revenue flows, and the nature of the product mix harvested over time. Ultimately these factors reflect differences in harvested and growing stock age class distributions under each alternative, and therefore the underlying landscape management regimes.

- The DEIS fails to fully analyze economic impacts between the proposed alternatives. L24/C5A

Response: The PDEIS and DEIS analyze only the direct financial impacts associated with the alternatives (refer to Appendix D, PDEIS-4 Financial assessment of the PDEIS and Appendix D of the DEIS). Indirect financial impacts are not examined in part on account of their highly speculative nature, and in part to avoid analytical bias arising from estimating the net effects of these impacts. This point is noted in the two appendix documents referred to above. The possible presence of costs and benefits not accruing to land management practices is also noted in the above appendices, along with acknowledgement of their potential magnitude.

- A financial assessment was included in the PDEIS (Appendix Section PDEIS-4) but was conspicuously absent in the DEIS. The PDEIS financial analysis computed differences in net present values (NPV) for each of the alternatives. The DEIS simply reports differences in undiscounted revenues and does not report differences in NPV. NPV is a better measure of economic differences between the alternatives and should be included in the DEIS. L24/C5B

Response: The DEIS reports NPVs for each alternative and differences in NPVs between alternatives in Table DEIS4-1 of the Appendix D financial analysis.

- Projected revenues (Table 7 appear substantially understated.” The basis for this claim is provided later: “DEIS Table 6 shows an annual *reduction* in harvest volume ... resulting in only a 12 percent reduction in average revenue. L24/C5C

Response: The claim of substantial underestimation appears to originate from improperly comparing estimates provided in Tables 6 and 7. For the ‘No Action Alternative’ the respondent appears to take average annual revenue data for the first two decades of the planning period (\$1,786,000/year from Table 7) and divide them by the average annual harvest volume for the entire planning period (5,511 Mbf/year from Table 6) to get \$342/Mbf (it should be \$324/Mbf) for the No Action Alternative. Instead, he should estimate the average annual revenues for each alternative based on the entire planning horizon (the data to do this are provided in Table 7, e.g., \$337,392,000 / 200 years divided by 5,511 Mbf/year = \$306/Mbf for the No Action Alternative), and then divide those by the respective average annual harvest volumes presented in Table 6. This calculation provides average annual stumpage estimates of approximately \$306/Mbf for the No Action Alternative, \$324/Mbf for the Preferred Alternative, and \$294/Mbf for Alternative 3. This range of average stumpages is not unreasonable once product mix considerations (e.g., sawlogs, thinnings, etc.) are taken into account.

BE-7: Quantify risk of slides

- Risk of slides, floods and debris flows (p. 116) – statements must be quantified to see if the extra protection is worth it. L21/C15

Response: Data is not available to determine the statistical chance of these events occurring or to determine precisely the consequences of a slide, flood or debris flow should one occur. Therefore, the discussion of risk is described qualitatively based on the analysis and professional judgment of the specialist.

BE-8: Recreational opportunities

- Loss of recreational opportunities is not acceptable (p. 117). L21/C16

Response: Recreational use of trust lands is available to the public when compatible with trust management objectives. Recreational access would be diminished due to the reduced size of the road network under the Preferred Alternative.

BE-9: EIS needed more detail

- The EIS is vague. Further discussion should include detail on such things as management planning, logging allowances, sediment measurement, etc. L11/C1

Response: DNR believes the information in the document is sufficient for its intended purpose of analyzing the probable significant impacts of the alternatives.

Comments Concerning the Alternatives in General (GA)

GA-1: General comments

- Amazed people in Sudden Valley are so upset – the people living there have the greatest impact. Important to use the plan that allows most timber harvest. Timber harvest under current standards will have less impact on water quality than most other activities in the watershed. Seattle and Tacoma have logged in their drinking water watershed for years; Seattle stopped recently because of political, not scientific, impacts. PH14/C1 and C2

Response: Comment noted.

- Feel that all three alternatives are bad and unacceptable. Opposed to clearcutting anywhere, and fears another debris flood like that in 1983. PH16/C4

Response: Comment noted.

- Still too much emphasis placed on logging, too high a level of harvest. L2/C1

Response: Comment noted.

- I do not support any of the three alternatives. EM11/C1

Response: Comment noted.

GA-2: No Action Alternative

Response follows the eight comments below.

- Make sure the No Action Alternative is implemented to avoid imposing another fixed cost to county and watershed residents. L3/C3
- My forest management experience leads me to the conclusion that the appropriate management of DNR trust lands in the Lake Whatcom watershed should be similar to the No Action Alternative...It sufficiently assures public safety and protects water supply while providing the required trust revenues. L19/C1
- Given the alternatives, I would choose the no action plan. L18/C1
- Only the No Action Alternative comes close to meeting objective: “develop a management strategy which will simultaneously provide environmental protection, contribute to water quality in the planning area and assure economic viability of trust lands for the long-term benefit of beneficiaries. L21/C2
- Mount Baker School District urges the Board of Natural Resources to adopt the No Action Alternative....L50/C2
- I strongly support the No Action Alternative. Good water quality can be maintained along with responsible forest practices governed by current regulations and policies. EM31/C1

- Adoption of any alternative other than No Action would constitute an undue burden on Washington and Whatcom County taxpayers in terms of foregone timber revenues. EM31/C6
- I would suggest you follow the No Action Alternative. Washington State has in place very stringent standards for logging already, and the Preferred Alternative and Alternative 3 simply are overkill... EM68/C1

Response: As stated in the PDEIS Response Summary, the No Action Alternative fails to comply with the requirements of the Lake Whatcom legislation, but SEPA still required it to be included in the EIS.

GA-3: Preferred Alternative

- The Preferred Alternative is pretty fair but would like it to be closer to the No Action Alternative. PH20/C3

Response: Comment noted.

- The Preferred Alternative allows the least protection. It maximizes income over protection and the environment. Alternative 2 is not a balanced compromise. Preferred Alternative does not protect homeowners in Glenhaven, where landslides are a historical fact. PH12/C1

Response: Comment noted.

- Provide the studies that demonstrate that logging and road building on potentially unstable slopes meets the stated standard of ensuring “no significant risk.” If you cannot...you need to change the Preferred Alternative to ensure no significant risk by prohibiting logging and road building on potentially unstable slopes. L26/C6

Response: Typically, studies are conducted to test specific hypotheses and to investigate areas of interest to particular researchers. Just because there is not a large body of literature concerning logging and road building on potentially unstable slopes it does not prove that there is significant risk. DNR staff will continue to watch for and apply evolving scientific and technical information. The process for designing management activities on potentially unstable slopes involves looking closely at each site using qualified specialists to determine if unstable slopes are present, and if so, excluding those areas from harvest or road building. Areas that show no signs of being unstable then will be considered for management based on the specific conditions found at the site. Management decisions could range from “no management at all” to “no special protection measures necessary” or anything in between; the decision will be based on a careful application of current knowledge specific to that site. The final design also will be subject to SEPA review and Forest Practices review and approval. It is expected that this process will include consideration of applicable new scientific information when it becomes available. DNR stands by its analysis of the Preferred Alternative in the PDEIS and the DEIS which indicates that this process will result in management decisions that do not pose a significant risk to the environment or the safety of down-slope people or property.

- Incorporate the new scientific study information on root cohesion into the Preferred Alternative. L26/C7

Response: The literature citations concerning root cohesion were considered by DNR's analysts in the development and analysis of the Preferred Alternative. As new information regarding slope stability and related topics becomes available it will be reviewed and when appropriate DNR will adapt its land management techniques accordingly.

- We ask that monitoring and a process for adaptive management be included as part of the Preferred Alternative. L26/C8

Response: DNR applies the principle of adaptive management (which includes implementation and effectiveness monitoring) on all trust lands, including the Lake Whatcom landscape; it is assumed to be an inherent part of implementing the strategies of the Preferred Alternative.

- In several places the Preferred Alternative falls short of E2SSB 6731 and the objectives laid out by the committee. L26/C11

Response: The department respectfully disagrees.

- We ask that the Preferred Alternative be modified to stop additional delivery of sediment to streams in order to have minimal impact on Lummi ceremonial sites. L26/C19

Response: The Preferred Alternative provides specific measures to minimize the delivery of sediment to streams.

- Lake Whatcom Forestry Advisory Forum supports the Preferred Alternative.....Although conifers are preferable for protecting the watershed, DNR should consider managing hardwood stands for economic and biodiversity reasons. L48/C1

Response: Comment noted.

- The Preferred Alternative opens up 53% of the area to commercial logging. E2/C1

Response: Comment noted.

- The Preferred Alternative is not a precautionary measure, rather it is a reaction to public pressure. OL1/C1

Response: Comment noted.

- The commenter personally believes DNR thinks it must cut as much timber as possible to comply with fiduciary responsibility. Committee majority against Preferred Alternative and for Alternative 3 would carry a strong message and far more weight to Board of Natural Resources. PH4/C2

Response: Comment noted.

GA-4: Alternative 3

- Sudden Valley Board: PDEIS Alternatives 4 and 5 were not included in the DEIS. They reject the Preferred Alternative and support Alternative 3, which in their opinion gives a reasonable level of watershed and homeowner protection. PH4/C1

Response: A purpose of the DEIS, as a SEPA step in the planning process, was to select a preferred alternative and intentionally narrow the range of alternatives from those presented in the PDEIS. DNR and the Lake Whatcom DNR Landscape Planning Committee worked together

to develop the Preferred Alternative after considering comments on the PDEIS. After the Preferred Alternative was finalized the Committee chose Alternative 3 to bracket the Preferred Alternative between it and the No Action Alternative. As a result, Alternatives 4 and 5 were dropped from the range of alternatives to be evaluated in the DEIS.

- I support alternative 3. CC3/C1, CC4/C3, L30/C1, L43/C6, L45/C3

Response: Comment noted.

- Alternative 3 provides extra protection to unstable slopes while protecting riparian zones. CC5/C1

Response: Comment noted.

- Only choosing one end of the spectrum – give us something that reflects the whole spectrum. I prefer Alternative 3 at a minimum. PH12/C2

Response: As noted above, the DEIS was intended to narrow the choices and select a Preferred Alternative from the broad spectrum of possible alternatives. There is not one alternative that encompasses the whole spectrum of management preferences. The Preferred Alternative was selected because it provides a reasonable balance of environmental protection, economic benefits and meeting community expectations.

- I would prefer a more restrictive Alternative than Alternative 3. L12/C2

Response: Comment noted.

- The only provisions of the Preferred Alternative that could be consider restorative are [under objectives 2 and 6]. ...Alternative 3 in contrast gives important commitments to orphaned road mitigation and blocking culvert replacement within three years of the plan's adoption. L14/C5

Response: Comment noted.

- Wish to formally request a variation on DEIS Alternative 3...amended to ensure no logging on potentially unstable slopes. We believe this would provide the best possible protection for drinking water and from peak flows...while allowing DNR to meet a measure of its fiduciary responsibility. L17/C4

Response: Comment noted.

- I consider Alternative 3 to be preferable to the Preferred Alternative and to constitute a maximum tolerable level of harvesting...Continuation of the moratorium would also be acceptable, in my opinion. L22/C2 (same comment in EM57/C7)

Response: Comment noted.

- Add monitoring of streams for sediment and general health. L30/C5

Response: Comment noted.

- Plan needs to incorporate protections in Alternative 3, including no clearcutting on potentially unstable slopes. L33/C1

Response: Comment noted.

- Please consider Alternative 3 to keep water clean, prevent landslides, and keep hillsides beautiful. L35/C1

Response: Comment noted.

- Plan 3 gives us a more effective way to ensure future of drinking water and ability to manage lands in a responsible and caring way. L37/C3

Response: Comment noted.

- I would implore the decision making committee to strongly consider Alternative 3. L38/C1

Response: Comment noted.

- Adopt #3. Please understand those most at risk are the families living directly below steep slopes you wish to manage. L39/C1

Response: Comment noted. A major focus of this planning effort has been to understand the risks to down-slope residents and avoid management activities that might increase those risks.

- Alternative 3, while offering some environmental improvement, still opens up more than a third of the area to commercial uses. E2/C1

Response: The lands DNR manages are trust lands. There is an expectation and legal responsibility to generate revenue from these lands for the trust beneficiaries.

- I was quite distressed to hear that the Preferred Alternative was the original Alternative 2. I am strongly against this; would ask that the committee consider my vote for Alternative 3. EM3/C1

Response: The Preferred Alternative is not the same as PDEIS Alternative 2; it was developed by DNR and the Committee in a consensus process between January 2003 and April 2003. It incorporates elements from both PDEIS Alternatives 2 and 3 and also includes elements that were not part of any of the PDEIS alternatives.

- We sincerely appeal to DNR to see all the protections in Alternative 3 incorporated into Alternative 2. EM10/C1

Response: Comment noted. Please note response above to Comment EM3/C1

- Please realize our quality of life as a working class family would be preserved by the protections stipulated in Alternative 3. EM10/C3

Response: Comment noted.

- I would like to see Alternative 3 incorporated into Alternative 2 as it would appear to lessen the impact to Cain Lake. EM24/C1

Response: Comment noted. Please see response to EM3/C1 above.

I support Alternative 3. EM28/C2

Response: Comment noted.

- I ask you to consider Alternative 3. As Glenhaven community member, we have only to look out the window and see what devastation is left behind from past logging. EM56/C1

Response: Comment noted.

- North Cascades Audubon Society supports 1) development of older forest conditions, commensurate with strategies identified in Alternative 3, 2) Strategies for streams and riparian areas commensurate with Alternative 3, and 3) does not support allowing 50% removal of trees from potentially unstable slopes as in Alternative 3. 1) EM59/C3, 2) EM59/C5, 3) EM59/C7

Response: Comments noted.

- Alternative 3 gives commitments to orphaned road mitigation and blocking culvert replacement within three years of the plan's adoption; Preferred Alternative says blocking culvert replacement would be carried out only during planned management activities or during implementation of Road Maintenance and Abandonment Plan. EM65/C7

Response: Implementation of the Preferred Alternative would result in all maintenance and abandonment work (including necessary orphaned road work and culvert replacement) being completed within four years of approval of the Landscape Plan.

GA-5: Alternative 4 and Alternative 5

- I prefer the protections of Alternative 4. At a bare minimum, the protections of Alternative 3, along with prohibition of any logging on potentially unstable slopes to safeguard the people and property of Glenhaven. EM26/C10

Response: Please see the response to comment PH4/C1 above.

- No analysis is presented of Alternative 4. EM57/C4

Response: Please see the response to comment PH4/C1 above.

Change the Preferred Alternative to Alternative 4 of the PDEIS. EM61/C1

Response: Please see the response to comment PH4/C1 above.

Comments Concerning the EIS Process (EP)

EP1: Process flawed by lack of forestry industry participation in Committee; Process failed to consider viewpoints of other parts of the public

Response follows the six comments below.

- There was no forest industry representation on the committee whatsoever. The committee was handpicked to have like political and environmental views. EM31/C5
- This document is the product of a political process that has excluded good science and well trained resource professionals who know how to manage watersheds and potentially unstable lands. I am not against having members of the public as part of the committee; they have a

right to be involved. Had the committee been more science and land management oriented, the product would have had much better choices. L18/C2

- Forest industry and major forest landowners in the watershed were not adequately consulted. Because of this the process should be started all over again with proper representation of all groups, or management of the area should continue under the regular Forest Practices Rules and the HCP. L21/C1
- DNR's Preferred Alternative was put together entirely utilizing input exclusively from the environmental community and specifically excluded timber industry and private landowners. This process has been one-sided and the Preferred Alternative reflects this bias. EM30/C1
- I question whether those of us who choose to live in the Whatcom/Bellingham area were fairly represented in the "scoping" process earlier on in relation to industrial and developer interests. EM2/C3
- Although you solicited comments from the public and held public meetings for the PDEIS, these were done solely to fulfill the process required by DNR procedures. Comments did not factor into your decision in developing the Preferred Alternative. I do not believe the public's concerns were taken seriously. EM58/C1

Response: Similar comments were received and addressed in the PDEIS Response Summary. The Landscape Committee structure and role was mandated by the legislature (E2SSB 6731), and DNR has given appropriate weight and consideration to the Committee's recommendations. At the same time, the EIS process relies heavily on public involvement to ensure that all pertinent viewpoints and information are considered. Public comment periods for the PDEIS and DEIS have provided the opportunity for additional input from all interested parties.

EP2: Public notification for September 22, 2003 meeting

Response follows the five comments below.

- It has been brought to my attention that a meeting was held Sept. 22 to address concerns of logging practices in the Glenhaven area. I did not receive any notification. EM28/C1
- Word of this document reached me by word of mouth, despite the fact we had attended DNR-sponsored meetings on logging Lookout Mountain in the summer of 2002, and had expressed interest in being kept informed of DNR actions affecting further logging in that area. EM57/C1
- You did not notify the people in my neighborhood (Glenhaven) about the meeting on the 22nd... Only one other woman I spoke with received your Sept. 8 letter of notification. ...At a minimum, notification should have been sent to everyone who provided contact information at the last meeting. EM26/C1
- The Sept. 8 letter seemed designed to confuse the reader with a lot of legalistic and misleading jargon. EM26/C2

- Include public opinion. L11/C8
- Keep people informed of activities. L37/C2

Response: DNR sent a news release to a statewide media list announcing the September 22 public meeting and public hearing concerning the Lake Whatcom DEIS. In addition, approximately 400 parties were notified by mail. An official SEPA notification of the meeting was sent to members of the Lake Whatcom DNR Landscape Planning Committee, agencies with jurisdiction, tribes and a list of individuals and organizations who have expressed interest in the Lake Whatcom planning process.

EP3: Characterization of alternatives at Sept. 22, 2003 public meeting

- The [Sept. 22, 2003] meeting seems orchestrated to push Alternative 2 on the public. It was constantly referred to as the Preferred Alternative. Alternative 3 was referred to as the Non-preferred Alternative. It was only by questions raised that others became aware that there were originally five options. EM26/C3

Response: The Preferred Alternative presented in the DEIS is not identical to PDEIS Alternative 2. Five alternatives were presented in the PDEIS, which was part of the scoping phase of this planning process. The Preferred Alternative for DEIS analysis subsequently was developed by the Lake Whatcom DNR Landscape Planning Committee and DNR in a consensus process conducted from January through April 2003. In keeping with SEPA, the range of options or alternatives was refined and narrowed from the five presented in the PDEIS to three DEIS alternatives. Alternative 3 was carried forward to the DEIS at the Committee's request to bracket the range of options for simultaneously providing environmental protection and trust revenue.

EP4: Range of Alternatives

The response follows the two comments below.

- The range of alternatives does not encompass the "reasonable range" required by SEPA. L24/C1
- It fails to describe a meaningful range of possible alternatives... EM57/C6

Response: DNR began the SEPA process for the Lake Whatcom Landscape Plan with a Preliminary Draft EIS. That document contained five alternatives – a no-action alternative, an alternative that closely adhered to the minimum requirements of the Lake Whatcom legislation, and three alternatives generated by the Committee that were progressively more restrictive. Following the PDEIS, the DNR felt that PDEIS Alternatives 4 and 5 were too economically restrictive and did not reflect a commensurate gain in either water quality or slope stability protection. DNR and the Committee worked together to make changes to PDEIS Alternative 2 that increased certain protections beyond the legislation's minimum requirements, and this became the DEIS Preferred Alternative. A No Action Alternative is required by SEPA, even though in this case the No Action Alternative does not comply with the legislative requirements and is thus infeasible. The Committee felt that the DEIS should bracket the Preferred Alternative

with Alternative 3 from the PDEIS. The department believes that this process meets SEPA's requirements for studying a range of reasonable alternatives.

EP5: Committee's objectives for the Lake Whatcom landscape

The response follows the two comments below.

- The excellent objectives set by the committee should be an absolute foundation for guiding the EIS process and devising the management strategy. L14/C4
- Objectives were written by DNR and the Landscape committee and contained policy issues more correctly acted on by the Board of Natural Resources. DNR and the committee appear to have overstepped their planning authority. L24/C2

Response: The Board has been kept informed during the Lake Whatcom planning process of the discussions held and products developed by DNR and the Committee. The Board ultimately will decide whether to accept or reject the landscape plan.

EP6: "Voting" for PDEIS or DEIS Alternatives

- I would like to see a summary of the previous comments. What percentage voted for Alternative 2, 3, and so forth. My guess is that the majority of public opinion was in favor of Alternative 4. EM26/C4

Response: While individual commenters may prefer a particular alternative, environmental review under SEPA is not a balloting process. Rather, it is intended to ensure that potentially significant environmental impacts and reasonable alternatives are identified and evaluated. Public comments and responses have been posted on DNR's Internet website at <http://www.dnr.wa.gov/htdocs/agency/whatcom/index/html>

EP7: "Overseeing" DEIS comments

- I am writing to question the goal of DNR and other state agencies regarding the DEIS. It is apparent from the e-mail obtained from Dr. Jeff Koenig's WDFW Director's office that DNR Director Sutherland and Dr. Koenings have plans to "over see" the DEIS comments... E51/C1

Response: There has been no direction from Commissioner Sutherland to the staff responsible for handling DEIS comments. DNR staff has no knowledge of Washington Department of Fish and Wildlife's internal process for review of the comments and has not been contacted by anyone from that agency. Certainly, the SEPA comments themselves are public records, and may be read by anybody (including state agency employees). The public comments have been posted on DNR's Internet website at <http://www.dnr.wa.gov/htdocs/agency/whatcom/index.html>.

EP-8: Incorrectly worded version of E2SSB 6731

- The DEIS fails to include the full and correct language of E2SSB 6731. The DNR needs to investigate and determine how this happened. We ask that you reprint the DEIS, replace all copies in circulation and remove the inaccurate bill from your website. L26/C1

Response: DNR regrets that the PDEIS Appendix included a faulty version of E2SSB 6731 that went undetected until after it was carried forward and reprinted in the DEIS Appendix. A temporary worker tracked down a hard copy of the legislation and hand typed the bill language to create an electronic document version; a text omission occurred due to a typing error. When the error was pointed out, DNR followed proper SEPA procedures and placed an addendum on its Lake Whatcom website, with a full and correct version of the bill obtained from the state Code Reviser's website. Notification of the addendum was mailed from DNR's SEPA Center to agencies with jurisdiction, tribes and a list of parties who have expressed interest in the Lake Whatcom planning process. A correct version of the legislation also appears with the FEIS, with notation that only the FEIS version should be used for future reference since there is incorrect wording in the versions of E2SSB included in the PDEIS and DEIS appendices. The text of the law may also be located at any local library using the Washington Laws citations: Laws of 2000, Ch. 205, or on the Internet at http://www.leg.wa.gov/sl/1999-00/6731-s2_sl.pdf.

EP-9: Importance of comments

- Important that everyone write comments on the DEIS. PH17/C1

Response: Substantive comments from the public and other agencies provide important information that is fully considered by DNR staff in each phase of the EIS process and by the Board of Natural Resources in its decision regarding the Lake Whatcom Landscape Plan.

EP-10: What would happen if Board rejects the Preferred Alternative?

- What would happen if the Board of Natural Resources rejects the Preferred Alternative?
CC2/C1

Response: The Board of Natural Resources could reject the Preferred Alternative in favor of Alternative 3, or the Board could reject both the Preferred Alternative and Alternative 3. (The No Action Alternative does not meet requirements of the Lake Whatcom legislation.) The next steps in the process would depend on the direction that the Board of Natural Resources gave, and what it said and did in rejecting these alternatives. A supplemental EIS may be necessary if the options the Board directed the department to consider had not been fully analyzed within the scope of the environmental impacts considered in this EIS.

Comments Concerning Legal and Policy Issues (LP)

LP-1: Interjurisdictional Committee

The response follows the 14 comments below.

- Want to express support for continuing the IJC. PH5/C2, PH9/C3, EM62/C5, CC2/C3, OL4/C3
- Strong IJC, with independent scientists. L4/C5, L27/C3, L30/C4, L31/C1, L43/C3, L43/C3

- As largest landowner in the watershed, what DNR does is critical, so City of Bellingham believes the interjurisdictional committee (IJC) should be continued as part of implementation. PH1/C1
- Create IJC. L2/C5, EM60/C7, EM69/C3
- Want to see an IJC with independent scientists who have authority to stop risky activities on potentially unstable slopes, funded by logging revenues. L6/C4, L5/C5, L7/C4, L10/C4, L16/C2, L17/C5, L22/C4, L23/C4, L26/C2, L26/C4, L32/C2, L40/C5, L47/C1, L 48/C2, L52/C3, EM61/C5,
- Want to see an IJC with independent scientists who have authority to stop risky activities on unstable slopes, funded by logging revenues. L15/C5, L28/C3, L53/C4, EM5/C4, EM6/C4, EM7/C4, EM8/C4, EM9/C4, EM12/C4, EM13/C4, EM14/C4, EM15/C4, EM16/C4, EM17/C4, EM18/C4, EM19/C4, EM20/C4, EM21/C4, EM22/C4, EM25/C3, EM29/C2, EM33/C4, EM34/C4, EM35/C4, EM36/C4, EM37/C4, EM38/C4, EM39/C4, EM40/C4, EM41/C4, EM42/C4, EM43/C4, EM44/C4, EM45/C4, EM46/C4, EM47/C4, EM48/C4, EM49/C4, EM63/C4, EM64/C4, EM66/C4, EM67/C4, EM69/C3, M70/C4, EM71/C4, EM72/C4, EM73/C4, OL3/C3
- IJC must have authority to evaluate, make recommendations, and modify timber harvest plans from time to time according to best scientific expertise available. DNR must provide stable funding source for IJC to retain qualified peer review experts and make certain IJC has power to alter plans that would likely have detrimental impacts on watershed. L49/C2, EM4/C2, EM26/C9, EM27/C4, E57/C10
- The process used in developing the plan should be continued, and technical resources should be available to local government to comment on proposals for harvest. Insure funding for the future implementation through resources generated in the watershed. PH1/C2
- Lake Whatcom Forestry Forum would like to see an IJC that includes not only environmental and local government but also foresters with expertise and advice to protect the watershed. PH2/C1
- Forestry Advisory Forum is willing to change membership and format to serve as IJC. L48/C3
- Encourages support of an IJC composed of representatives of city of Bellingham, County, tribes, Water District 10 and citizens to participate with DNR in implementation of landscape plan. The IJC should have authority over plans they deem too risky to the watershed. IJC should be involved in the decision making with DNR. Stakeholder involvement is critical. Need funds for technical resources. PH7/C1
- Either have no logging on potentially unstable slopes or a strong IJC with independent scientists with the authority to stop activities on roads and potentially unstable slopes. PH8/C5

- Enforcement: Facilitate public reporting of later perceived problems and publicize reports/actions taken afterwards by agency. PH19/C2
- Monitoring organization should be established by IJC to regulate and monitor DNR activity. CC2/C2
- IJC must have authority to issue cease and desist orders to DNR, until any issue where agreement between the parties that cannot be achieved is arbitrated by the appropriate committee of the State Legislature. E58/C2

Response: An interjurisdictional committee is referenced in the Lake Whatcom legislation, E2SSB 6731 and Objectives 1 and 3 of the Preferred Alternative. Discussions currently underway between DNR and Whatcom County suggest that the Lake Whatcom Management Committee (which includes representation from Whatcom County, the City of Bellingham and Water District 10) will be involved in establishing the membership and the review process of the IJC. The legislation states that the department “shall consult with the Lake Whatcom Management Committee on proposed timber harvest and road management activities” and that the IJC “may recommend restrictions on timber harvest and yarding activities on a case-by-case basis.”

LP-2: Monitoring costs and IJC costs

- It makes sense that cost of monitoring as well as the cost of investigation and studying impacts should be included in the costs of timber harvest. In other words, these committees should be paid through timber sale revenue. EM14/C5
- Small percentage of logging revenue should go to monitoring of roads/setbacks. L2/C3

Response: These decisions are not DNR’s to make. DNR has distributed approximately \$56 million of timber revenue to Whatcom County over the past 10 years and significant amounts are anticipated in the future as well. The county in turn distributes this revenue to local junior taxing districts, county and state funds. A significant portion is available to the County to fund any review and monitoring of DNR forest management plans and activities it chooses. DNR does not have the authority to redistribute trust income. The revenue distribution scheme is established by the Legislature in various statutes.

LP-3: Taxes/jobs

- There are tax implications – 46% revenue reduction gets passed to entire county. Reduced harvest could have significant economic impacts because of lost jobs and viability of Everson Mill. PH14/C4

Response: Comment noted. As stated in the PDEIS Response Summary, the No Action Alternative fails to comply with all of the requirements of the Lake Whatcom legislation.

- Adoption of anything but the No Action Alternative would constitute an undue burden on Washington and Whatcom County taxpayers in terms of foregone timber revenues Reducing harvest after such comprehensive review and regulations exist in order to protect resources would be unnecessary and costly to taxpayers. E31/C6

Response: Comment noted. Please see response to PH14/C4 above.

- The governor has noted the tax concern. The concern is not being addressed by those who are creating hysteria about water quality problems. PH15 C3

Response: Comment noted.

- We are not supportive of efforts to lower the timber supply and destroy jobs and companies like ours. The effort will have a negative effect on future private forest land owners as well as the state harvest. Our communities cannot afford the loss of tax base, jobs and school trust funds. EM68/C2

Response: Comment noted.

LP-4: No logging should be allowed in Lake Whatcom watershed

The response follows the two comments below.

- No logging/roads/development in watershed L8/C1
- No logging in watershed CC6/C1, L29/C1

Response: Preferences noted. The DEIS considers activities only on trust lands managed by DNR and would not affect other lands within the watershed. Moreover, it was not the intent of the Lake Whatcom legislation to eliminate all timber harvest activities on state-managed lands within the watershed.

LP-5: Subsurface diagonal drilling for oil and gas exploration should not be allowed

- No gas or oil exploration should be allowed under the landscape plan. L4/C4, L15/C5, L27/C5, L28/C4, L31/C4, L32/C3, L34/C3, L35/C5, L36/C4, L38/C6, L39/C2, L41/C3, L40/C7, L42/C5, L43/C4, L49/C4, L54/C4, EM4/C3, EM5/C1, EM11/C4, EM27/C2, E32/C3, EM50/C2, EM53/C3, EM60/C5, EM61/C4, EM62/C2, EM65/C3, EM69/C2, OL3/C5, PH8/C4, L10/C3

Response: Preference noted. Analysis for the PDEIS and DEIS indicated no significant risks that would warrant removing this strategy. All three alternatives permit subsurface diagonal drilling from outside the watershed, and should sufficient oil or gas reserves be found, would allow development of the resource compatible with other landscape objectives. Prior to any exploratory drilling, if any were to be proposed in the future, there would be substantial environmental review by agencies with jurisdiction, with ample opportunities for public comment and additional scientific analysis.

LP-6: Leave trees, rotation age and replanting

- Leave 25 percent of trees in every acre logged. L38/C5, L45/C7

Response: Preference noted.

- If logging continues, DNR should leave more than 8 trees per acre and harvest every 80 years instead of 60. E1/C1

Response: Preference noted.

- North Cascades Audubon Society supports rotation ages between 120-200 years for conifer forests in the planning area, not the 60-year rotation age in preferred alternative. EM59/C9

Response: Preference noted.

- Adopt 140 year rotation plan L31/C9

Response: Preference noted.

- Keep as much of state lands in various seral forest stages as possible, favoring mature forest. EM60/C2

Response: Comment noted.

- Replant within one year of cutting. L38/C7

Response: Comment noted. Forest Practices rules require replanting within three years of harvest. Normally DNR plants within one year of harvest on state land.

LP-7: Green Certification

- North Cascades Audubon Society supports 25 percent minimum retention level as well as immediate certification in planning area by Forest Stewardship Council. EM59/C8

Response: Comment noted. Certification of state trust lands is being evaluated and considered. The 25 percent retention level was an interim recommendation of Scientific Certification System, who performed a preliminary assessment on behalf of the Forest Stewardship Council in 2000-2001. More recent Pacific Coast Regional Forest Stewardship Standards will be applied during the updating of the assessment.

- If any logging at all is allowed, it should follow sustainability guidelines as used by River Farms and Van Zandt in their agreement with Crown Pacific. Sustainability and certified forests (by International Forest Stewardship Council) are key. PH10/C4

Response: Comment noted. The DNR manages trust forestlands on a sustainable basis. Sustainability guidelines are likely to vary by landowner, to comply with differing legal requirements, land management objectives and policy decisions.

LP-8: Concerns about safety and environmental protection

- How dare you talk about risk management when we are at risk. L1/C1

Response: Comment noted.

- Our fear is genuine, valid and with merit because we live on West Alder Drive directly below Lookout Mountain State Trust Land. EM10/C2

Response: Comment noted

- Live in Glenhaven...I ask that you consider how you would react if this were your home. Please consider how this impacts so many. Not only our safety, but water as well as the environment. E41/C5

Response: Comment noted.

- DNR is not responsive to public opinion – for example, recent logging above Glenhaven. CC4/C2

Response: Comment noted.

- I am concerned the plan fails to do the very best to protect our water supply...also alarmed that this plan does not place the safety of those of us who live in the watershed way on the tip top of your list of priorities. L15/C1

Response: Comment noted.

- I do not live in the area affected, but I believe we should do whatever we can to protect the environment, and I'm opposed to destructive logging practices. EM20/C5.

Response: DNR is very aware of the safety concerns of residents who live down slope from state trust lands. A major focus of this planning effort has been to identify areas that are unstable or potentially unstable and develop management strategies that avoid increasing the risk of landslides from these areas.

LP-9: Cleanup and damage costs

- Economic projections need to be looked at, more than for dollars from resource extraction but also the long-term costs of cleanup, health effects and providing clean air and water. PH10/C5

Response: The economic projections assume that all land management activities will comply fully with laws, regulations and policies that adequately protect the environment.

- Don't see benefit of Reed Lake being included in the Lake Whatcom watershed – none of our water goes into Lake Whatcom. The unstable slopes on the other side of the hills will lead to deaths. What are the processes for remuneration? PH13/C1

Response: Although Reed Lake does not flow into Lake Whatcom the state forest land located near there is contiguous with the larger block of state land in the Lake Whatcom area, and hence has been included in the DNR landscape plan. The intent of the management strategies is to avoid increasing the risk of landslides. Anyone who believes they have suffered damage as a result of DNR management activities may file a tort claim with the State of Washington for cost recovery.

- No mechanism to pay for damage that will eventually result from logging activities. EM26/C6

Response: See response to PH13/C1 above.

LP-10: Differing viewpoints on objectives for the watershed

- If you fail to realize lake is municipal water source, plan on legal action. L3/C1

Response: Comment noted. Please see response to L14/C6 below.

- Ecological system should be of prime consideration; social (income) benefits should be incidental. Increase public ownership for optimum watershed protection, with revenue production incidental. L13/C1, L13/C2

Response: DNR believes the Preferred Alternative provides a reasonable balance of ecological protection, revenue and community benefits.

- The land must be managed not solely to supply revenue but also to maintain clean drinking water, wildlife habitat and recreational enjoyment. L27/C1

Response: See response to L13/C1, L13/C2 above.

- The Preferred Alternative omits readily available and fully feasible aquatic resource protection strategies. Worse, its restoration strategies are very few, ill-defined, and lacking any solid commitments. L14/C21

Response: As stated in the DEIS and the referenced support documents, the Preferred Alternative employs several “readily available and fully feasible aquatic resource protection strategies.” These include Forest Practices Rules, HCP strategies, Watershed Analysis prescriptions, and the additional mitigation measures provided through the Preferred Alternative.

- DNR has greatest controlling influence on ecosystem and drinking water quality...Since deterioration [of water quality] has occurred DNR is further obligated to perform restoration projects to reverse degradation trends. L14/C6

Response: We respectfully disagree that the DNR-managed trust lands have the greatest influence on water quality in this basin. Rather the greatest water quality impacts arise from run-off in developed areas and fecal coliform bacteria from septic systems. The state departments of Health and Ecology have stated in writing that activities on DNR-managed forestlands are not likely to contribute significantly to declining water quality in Lake Whatcom. The Preferred Alternative provides strategies to further reduce potential impacts on water quality. See response to L14/C21 directly above.

- Manage watershed exclusively for purpose of providing clean water. Only [allow a] timber harvest if it can be clearly demonstrated to an IJC that it is necessary to improve water quality of Lake Whatcom. EM52/C2 and C4

Response: Preference noted. The intent of the Lake Whatcom legislation was not to prevent all timber harvest activities on state lands in the watershed, or fundamentally alter the purposes for which the lands are held. The trust would need to be compensated for the revenue that would be foregone if improving the water quality of Lake Whatcom were the only objective considered in management of the watershed.

- People are using ecology as a way of growth management. PH20/C4

Response: Comment noted.

- What’s done in Lake Whatcom sets a precedent, will be pushed onto other trust lands and could be imposed as regulation on small forest landowners in watershed. L19/C3

Response: The legislation is specific to the Lake Whatcom watershed and applies only to lands managed by DNR.

- No flexibility or ability to apply adaptive management in plan. L19/C4

Response: We respectfully disagree. The plan provides for adaptive management to utilize new information as it becomes available.

- Should not have a sustained yield model specific to Lake Whatcom. L21/C4

Response: The legislation called for creation of “a sustained yield model specific to the Lake Whatcom watershed that encompasses the revised management standards and is consistent with the sustained yield established by the Board of Natural Resources.” Laws of 2000, Ch. 205, sec. 1(4).

LP-11: Cultural resources

- Respect and accept Lummi Nation comments. L30/C6

Response: Comment noted.

- Recommend that OAHP be invited to participate in any working groups to address archaeological resource protection and management; professional archaeological survey prior to ground disturbing actions; development of a predictive model for cultural resources. L46/C1, C2, C3

Response: OAHP will be consulted whenever archaeological resource and management issues arise. Current DNR policy states that “All department personnel will identify potential archaeological, historic and cultural sites/resources in the course of their normal duties. Discovered resources will be recorded and inventoried in coordination with the Office of Archaeology and Historic Preservation (OAHP) and/or the appropriate Tribes so that they can be protected to the full extent allowable by law.” Archaeological survey prior to ground disturbing activity is part of this policy. Current DNR procedures in the Forestry Handbook require a survey during the field layout or compliance stage of a timber sale or other activity that may disrupt a cultural resource when a site is recorded for the area or when “input from Native American groups and others with specialized cultural resource knowledge (i.e., professional historians, professional archaeologists, etc.) to identify areas with a high probability of containing cultural resources.” All professional archaeological surveys conducted by DNR are sent to OAHP and are available for review. Predictive models are tools that enable the most efficient, effective use of cultural resource personnel. DNR personnel are currently participating in a predictive model process that may have implications statewide. Current DNR procedures state that “the department will pursue a long-range cultural resources strategy that will include obtaining the necessary budget for a professional archaeologist to develop an archaeological model for each sub-region. The model will be designed to stratify the landscape into areas that may have a high, medium, or low probability of containing cultural resources.”

LP-12: Trust obligations

- Revenue generation should be maximized within constraints of prudent, sustainable management. L50/C1

Response: Comment noted.

- Mt Baker School District urges BNR to adopt the No Action Alternative. L50/C2

Response: Preference noted. As stated in the PDEIS Response Summary, the No Action Alternative fails to comply with all the requirements of E2SSB 6731.

- Revenue lost under Preferred Alternative is shocking. No consideration for a funding source and mechanism to reimburse Mt Baker School District for foregone income for difference in revenue between No Action and Preferred Alternatives. L50/C3 & C4

Response: Comment noted. As stated in the PDEIS Response Summary, the No Action Alternative fails to comply with all the requirements of E2SSB 6731. The legislation did not address compensation to the trusts.

- Don't trade our programs for environmental restrictions that would have no significant water quality benefit. L50/C3, L50/C4, L50/C5

Response: Comment noted.

- Preferred Alternative does a reasonable job of incorporating environmental protection measures while allowing economic viability of trust lands. L49/C1

Response: Comment noted.

- I believe fiduciary responsibility for lands managed for Whatcom County is to manage them in the "best interests" of the citizens. If revenue can be generated, so much the better; however, revenue cannot take precedence over use of this land by residents of Whatcom County. EM58/C5

Response: We respectfully disagree with this characterization of the State's fiduciary duties. For more information on the State's obligations, please see *Skamania County v. State*, 102 Wn.2d 127, 685 P.2d 576 (1984), or AGO 1996 No. 11 (This is available on the Internet at: http://www.atg.wa.gov/opinion_1996_11.html)

- No community should exclude DNR trust lands from harvest and still expect to receive money for public education from the general trust fund. ... I resent that timber must be harvested in my "back yard" with proceeds from the sale to be shared with my neighbors in Whatcom County. Snohomish School District is in desperate need of another high school, yet a higher proportion of timber sale proceeds must not be diverted to Whatcom County. OL6/C1

Response: Comment noted. Portions of the revenue from state lands in the Lake Whatcom area are distributed to both Whatcom County area schools as well as to statewide school construction. See Table 9, on page 74, of the DNR Lake Whatcom Landscape Plan DEIS for the revenue distribution ratios.

- I recognize the complexities of this compromise. I understand that the money generated from logging is important to the state and county, particularly in times of budgetary shortfalls. However, the future of a community's water source should never be compromised. OL1/C2

Response: Comment noted. The department believes that the Preferred Alternative will not compromise water quality.

- Lessening use of natural resources and moving to sustainable economy is attainable today. Short-term logging profits should not overshadow long-term interests of the community.
PH10/C3

Response: Comment noted.

Issues or Concerns Outside DNR's Purview

- Logging allowances should be more strict – leniency under Bush presidency has made no sense. L11/C5

Response: Comment noted. Harvest levels on federal lands are set at the national level, while those for Washington's state trust lands are the responsibility of DNR.

- That there seems to be different rules for "private" forest owners seems wrong, and to the extent DNR can address this or some legislative entity could become involved would be desirable. L42/C9

Response: This is a legislative matter.

Effects on local land values

- Someone brought up at the Sept. 22 meeting that preserving the environmental aspects would eventually make the land more valuable and increase the value of the tax base (albeit a lot more slowly than just chopping down the lumber and selling it off). E2/C4

Response: Speculation about possible changes in property values is beyond DNR's purview in management decisions for this landscape.

- View of trees increases the value of my property. L40/C3

Response: Comment noted.

Climate change and global warming

- Timber harvest should consider climate change issues and long-range water needs. Consider Global Warming effect on type 4 and 5 streams. EM61/C2

Response: Comment noted.

- Clearcuts concern him. Not just cuts on supposedly potentially unstable slopes is a concern; forecast on climate change says up to 25 percent of forests in Pacific Northwest could disappear due to global warming. PH10/C2

Response: Comment noted.

Bond for water quality

- Post a bond based on assurance that water quality in streams on DNR lands will be cleaner. L23/C3

Response: DNR complies with applicable laws and regulations regarding water quality. Posting a bond is not required.

Issues or Concerns Outside the Scope of This Process

Clearcutting

The response follows the eight comments below:

- Clearcuts have benefits and in certain places are best way to go: clearcuts create habitat for falcons and eagles to catch rodents; frogs and salamanders benefit. People should know about benefits to wildlife from logging, this is not just about clearcuts and water quality. PH20/C1
- Clearcutting under Preferred Alternative concerns him. PH10/C2, L17/C2
- A clearcut is a big, ugly, ecologically devastated, denuded eyesore where every or nearly every tree has been removed... No more clearcuts. P11/C1
- I don't think there should be any clearcutting in drinking water reservoir. CC1/C1
- No clearcutting. CC6/C2. L12, C1, L45/C7, L55/ C2
- Too much clearcutting L16/C1
- Have witnessed clearcutting and was disappointed but I realize DNR needs to log somewhere to provide funding and keep up with demand for paper and wood. L36/C1
- Concerned about impacts should clearcutting occur. L42/C1

Response: As was stated in the PDEIS Response Summary, the issue of whether DNR should continue to use clearcutting, or regeneration harvest, as a silvicultural tool is broader than the Lake Whatcom EIS process. DNR manages forestlands statewide on a sustainable basis, complying with all applicable state and federal legal requirements and department policies. In many situations final harvest or regeneration harvest of a stand is a sound choice which balances ecological, social and economic objectives.

Information concerning other landscapes

- The Preferred Alternative will require DNR to more intensively manage other trust lands to meet trust mandate and fiduciary responsibility. DEIS fails to analyze probable significant environmental effects on other landscapes. L24/C3, EM30/C2

Response: Comment noted. The DEIS properly confines its analysis to the Lake Whatcom planning area, and the landscape plan does not contain any provisions for more intensive management of trust lands outside the watershed. Any harvesting on state lands within the Lake Whatcom planning area will be consistent with the statewide sustainable harvest levels established by the Board of Natural Resources.

- Adopting this alternative would open up need for an EIS that evaluates partial or total divestiture of trust lands to assets outside the Lake Whatcom watershed. L30/C3

Response: Comment noted. The department analyzes specific land transaction proposals as they present themselves.

- Include information in the EIS about other DNR logging sites within municipal watersheds. L23/C3

Response: Comment noted. Other watersheds are not a consideration in this process.

- Water supplies of other national municipalities are highly prized and vigorously protected. L51/C3

Response: Comment noted.

- As usual with resource extraction issues, I feel our government land management agencies don't go far enough in watershed protection. L55/C1

Response: Comment noted.

- Reforest all logging roads or convert into hiking trails. EM52/C3

Response: Comment noted. Road abandonment decisions exceed the scope of this EIS.

Alternate funding sources

- Work for another way to get money for state school needs. L16/C3

Response: Comment noted.

- Another source of trust funding must be found to replace timber harvest. CC23/C3, L16/C3, EM47/C5

Response: Comment noted.